The UNESCO Courier

A window open on the world

May 1968
(21st year)
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ABUSE OF DRUGS

A GROWING MENACE

Photo © Verena Mandelmann, Lausanne

TREASURES OF WORLD ART 25

Lady of Mercy

In this detail of a late 14th-century church fresco at Rhäzüns (Canton of Grisons, Switzerland), the faithful seek refuge in the folds of the Virgin Mary's robe (right of photo). The church, dedicated to St.George, is lavishly decorated with frescoes of great beauty, including a series recounting the life story of its patron saint. The oldest church in a region inhabited since the Bronze Age, It stands near Chur, capital of the Canton, on the road which was used by medieval travellers to journey from Lombardy in northern Italy to the Rhine.

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Cover photo

A problem as old as mankind, the abuse of drugs has taken on new dimensions in recent times. Most countries have now taken steps to combat the non-medical use of opium, cannabis, coca and their derivatives (morphine, heroin, hashish, cocaine and other drugs). But fresh problems have arisen today with the appearance of a wide range of synthetic drugs, from certain tranquillizer pills to "mind-changing" hallucinogenic drugs such as LSD. Cover photo symbolizes the sensory distortions and spectacular illusions induced by hallucinogenic drugs.

The abuse of drugs —a growing menace

SOCIETIES in all parts of the world have discovered substances which can alleviate pain and relieve various symptoms and which also give pleasurable sensations when consumed.

Some of the more important of these substances are opium, from the opium poppy; the leaf of the coca bush, which contains the active principle of cocaine; and the tall weed cannabis or Indian hemp, whose preparations are known variously as marijuana, hashish or bhang and by many other names. The medical value of opium is so high that this drug has been a boon to humanity to the present day; coca and cannabis, on the other hand, while they once had medical uses, have become relatively obsolete.

However, all these substances are dangerous because they share the quality of giving temporary euphoria and contentment; one can develop a craving for them in a short time that leads to complete dependence. It is this dependence which causes obvious harm to the user and society. Today, the abuse of cannabis is more widespread than that of any other substance under international control.

In recent years, however, we have witnessed the appearance and increasing resort to new stimulants, new sedatives and new hallucinogenic substances. The U.N. Commission on Narcotic Drugs, in an official report prepared in January 1968, pointed to the growing danger of these psychotropic substances not under international control—barbiturates, certain tranquillizers, amphetamines (or "booster" drugs) and "psychedelic" or hallucinogenic drugs such as LSD.

The non-medical consumption of these substances, the report stated, has already become a "serious social and public health problem in a number of countries and is tending to assume increasing proportions in others." It foresaw the growth of the problem and the possibility that "epidemic abuse will clearly be a very real danger in countries which are unprepared to meet it."

Until the end of the nineteenth century, the question of narcotic drugs was not widely regarded as an international problem calling for concerted action on a world-wide scale. The trade in narcotic products was viewed as a more or less legitimate business and the misuse of dependence-producing substances — such as opium, coca leaf and Indian hemp—was believed to originate in deeply ingrained habits of the populations of certain countries.

Prior to multilateral co-operation in the field of narcotics control early in this century, several bilateral treaties curbing the imports of narcotics into Far Eastern countries had been concluded by certain powers with political and trade interests in the area, but essentially the problem was considered a domestic one, which could be solved within the limits of national jurisdiction.

Developments in the latter part of the nineteenth century, however, gave a new dimension to the problem. First, through technological progress, laboratories began producing from opium and coca leaves an increasing number of alkaloids and their derivatives. Further, expansion of transport and international trade reduced geographical distances and natural barriers between nations until what originally seemed to be a local problem of a few countries became a matter of concern to the world community as a whole. Moreover, the association of traffic in narcotics with misery and crime contributed to a growing conviction that the sale of drugs could no longer be viewed as a simple commercial transaction, free from government interference.

Attempts at collective efforts by governments to deal with this menace to health and social order were backed by enlightened public opinion and by an interest in self-protection on the part of those who became aroused by a danger to which they had previously thought themselves immune.

The reasons which led to the establishment of a system of universally applied control over narcotic drugs were humanitarian rather than economic or financial. In the general interest of mankind, governments freely consented to limit their own freedom of action and to give an account of their activities in the field of narcotic drugs to international organs originally created within the framework of the League of Nations and now operating under the United Nations.

Addressing the U.N. Commission on Narcotic Drugs in January 1968, Pier Spinelli, Director-General of the United Nations Office in Geneva, reported that the abuse of narcotics had assumed epidemic proportions and that more people—especially young ones—were questioning the justification of the struggle against drug addiction and notably against the abuse of cannabis. Appropriate action was necessary, he said, to counter such attitudes.

This man, lighting a pellet of "chandu"—opium prepared specially for smoking—has become dependent on the drug. At the age of 18 he was an athlete. One day he decided to "pep himself up" for a competition by taking a little opium. Gradually this grew into a habit. Now he smokes almost 50 grammes of opium a day and spends nearly all his wages on this vice.

WHO photo

THE INTERNATIONAL CONTROL OF NARCOTICS

by Vladimir Kusevic

INTERNATIONAL co-operation in the control of narcotic drugs has its origins in the movement that sprang up at the end of the last century for nations to work together in several economic and social domains, in the wake of the principal effort to regulate political differences by peaceful means.

In the 60 years since the first formal attempt was made to circumscribe the dangers that lie in non-medical use of a drug like opium, the world has reached a situation today in which governments have progressively accepted limits on their sovereignty in the common interest of them all.

The problem of narcotics control is such that it makes wide co-operation almost imperative. Lack of co-operation in the field of narcotics control could bring social degeneration and do immediate mental and physical damage to hundreds of thousands of people.

Opium, one of the most important narcotic drugs, contains as alkaloids not only morphine, which is among the strongest of analgesics but also codeine, which is the essential part of most cough medicines, or anti-tussives, sold in the world.

The great beneficial qualities of narcotic drugs, whether analgesic or anti-tussive, require that the drugs be available to all those who, in the opinion of their doctors, are in need of them.

Narcotic drugs, however, also have the harmful quality of producing drug-dependence (addiction). A very small proportion of persons who are drug-dependent reach the state out of medical treatment during which they are administered narcotic drugs in such doses that they become dependent and continue wanting to take the drugs even after the medical need has passed.

However, most of the drug-dependence in the world has nothing to do with medical use: persons started taking drugs for a combined sense of pleasure and well-being or to escape from psychological or other problems besetting their lives. The state of drug-dependence can arise very soon after the first administrations of the drug; the need for the drug becomes irresistible and it is taken in increasing doses. The drug addict is led into an artificial world in which his life centres round obtaining and using the drug. He progressively loses contact with reality and his function in society is impaired.

Heroin, made by the conversion of morphine, is the most dangerous of the drugs obtained from opium and the abuse of heroin is a serious problem in some countries.

The experience of the last century with opium, with heroin between the World Wars and with heroin and the new drugs today, have shown again and again that narcotics control must be international.

This realization which dawned at the turn of the century was progressively reinforced, and given expression in formal treaties binding all governments to take measures to ensure that drugs were available only for medical and scientific use, and prohibited for non-medical use.

THE responsibilities imposed by treaty must, of course, be conditioned by the roles that different countries play in the production, manufacture or use of narcotic drugs and substances. If a country produces raw narcotics—opium, cannabis or coca leaf—the treaties require that such production be organized in a way that the narcotic substances cannot find their way into illicit channels.

The same responsibility is imposed upon governments which manufacture narcotic drugs, either from the natural substances—for example, morphine from opium or cocaine from the coca leaf—or manufacture other narcotic drugs such as pethidine or methadone by processes of chemical synthesis. These two aspects of international control are specific to producing and also manufacturing countries.

The third aspect is common to all countries since all are medical consumers of narcotic drugs: this aspect requires that the arrangements under which narcotic drugs are traded or supplied for medical purposes be under such control that they cannot be put to illicit use in the country itself, and also that they cannot be diverted to supply illicit requirements in another country.

These controls were developed step by step through nine conventions and protocols dating from 1912 down to 1953. This corpus of international treaties progressively refined and strengthened controls on production, manufacture and licit supply, and at the same time it laid down lines for combatting both drug addiction and the illicit traffic in narcotic drugs which sought to maintain this social ill. In 1961 the last of the narcotics treaties was adopted, the Single Convention on Narcotic Drugs, with the purpose of simplifying the treaty provisions, and replacing the older treaties.

An examination of this treaty gives a comprehensive idea of all aspects of international narcotics control. Taking them one by one, it is seen for example that countries which produce opium are required to set up a state monopoly or equivalent administration which would license opium cultivation and take delivery of all the opium harvest.

As regards manufacture, the Single Convention has provisions which include, for example, that a concern wishing to manufacture a drug controlled by the Convention shall obtain permission to do so, the premises in which the manufacture takes place shall be licensed, and in addition that manufacturers shall receive periodical authorization specifying the kind and the amount of drugs which they shall manufacture.

On the supply side, a cardinal requirement is that any export and import of narcotic drugs be specifically authorized by the governments of both sides in terms of the drug, the quantity and the period by which the transaction shall be completed.

The production, manufacture and international trade in narcotic drugs is supervised by an international body, the International Narcotics Control Board. The Board is elected by the United Nations Economic and Social Council.

Apart from controlling production, manufacture and international trade, the Single Convention requires that all transactions in narcotic drugs on the national plane are also restricted to medical and scientific purposes. Governments are required to ensure, for example, that the trade in drugs is conducted by wholesale and retail

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DRUG PRODUCING PLANTS

From these four plants come the main "natural" narcotic drugs. They are cannabis, from which hashish and marijuana are prepared; the poppy plant, which gives opium and its derivatives, morphine and heroin; the coca bush, from whose leaves cocaine is made; and the Mexican Peyote cactus (its hallucinogenic properties were known to the Aztecs, and it is still used in America). Chemists recently isolated mescalin from the roots of this cactus and now produce it synthetically for use in psychotherapy.

CANNABIS
(Marijuana, hashish)

OPIUM POPPY

COCA LEAVES

PEYOTE CACTUS

WHO photos

establishments which are duly authorized; in the case of most drugs no retail supply or issue is permitted except against a medical prescription. Arrangements are set out to ensure that stocks held by traders or other establishments are checked from time to time, and prescriptions are matched against quantities actually moved in retail distribution.

The control on licit supply and demand is completed by measures against illicit supply and demand: the Convention seeks the provision of facilities for the medical treatment, care and rehabilitation of drug addicts, and sets down requirements of administration, international co-operation, legislation and penal action in respect of illicit traffic in narcotic drugs.

Governments are required to report annually, in detail, to the Secretary-General of the United Nations on the narcotics situation in their territory and keep him informed, for example, of cases of illicit traffic.

Thus the treaty control extends from the difficult aspect of controlling agricultural production to the complexities of tightly supervising manufacture in factories, proceeding therefrom to meticulous checks on how the drugs produced move through licit channels to supply medical needs, and includes attention to treating drug addiction and combatting illicit traffic.

It is interesting to note that while the philosophy of the Convention is absolute i.e. to limit narcotic drugs to medical and scientific use, transitional concessions are made by the treaty in respect of those countries where the non-medical and quasi-medical use of opium and the non-medical use of cannabis and coca leaf are practices that have been ingrained for centuries. The governments concerned in these cases have been allowed a lapse of time during which they undertake to put an end to such uses by progressively restricting the supply for such purposes.

The procedure for bringing new drugs under control is that the World Health Organization makes an expert assessment of the danger of abuse liability and ill-effects that the drug presents, and recommends that it be put under the appropriate control regime of the Convention.

This recommendation is subject to acceptance by the United Nations Commission on Narcotic Drugs, which

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is the international policymaking body in this field, under the Economic and Social Council. The Division of Narcotic Drugs of the United Nations Secretariat in Geneva, as part of its duties, makes studies for the Commission, and follows up decisions and recommendations that the latter adopts at its annual sessions.

In the last years a new danger has appeared—abuse of certain substances which had hitherto not been abused or were not known. These substances are psychotropic (other than narcotics) which have a stimulating or depressing effect on the central nervous system or create hallucinations; among them are included barbiturates, amphetamines, tranquillizers and hallucinogens. LSD belongs to the last-mentioned group and seems to be as dangerous as and even more dangerous in its effects than any of the narcotic drugs including heroin.

These substances were outside the scope of the Single Convention and the earlier narcotics treaties but as the problem of their abuse became widespread the international bodies have closely considered how the problem could be resolved.

In the first instance recommendations were made both by WHO and by the U.N. bodies to put these substances under national controls such as limitation of manufacture and distribution. In spite of these recommendations, the problem has grown apace, and it has become evident in the last two or three years that more international action is required which will bind governments to apply appropriate control measures.

The majority view seems to be that the nature of the substances is so diverse and the problems they pose so variable, in gravity and manageability, that the Single Convention conceived for the established narcotic drugs would not be suitable.

On the whole, it appears that a new treaty instrument may have to be adopted, but the final decision on this point will be taken by the Commission on Narcotic Drugs in the coming year or two. However, it is clear that the lacuna in international narcotics control through which these substances have been available for misuse is now likely to be closed.

Narcotics problems are not static and in the experience of more than half a century their nature, incidence and gravity has changed from time to time and country to country.

Given the international machinery established to oversee the management of the problem on a world-wide basis, and with reasonably efficient administration and laws on the national plane, every possibility now exists for restricting the abuse of dangerous drugs while allowing their full and increasing use for scientific and medical purposes, as more of the world's peoples come to enjoy the benefits of modern therapy.

THE POPPY OF SLOW DEATH

The majority of the world's opium poppies, like this crop being harvested in Laos, are grown in Asia. Since opium is legally cultivated in many countries for medicinal purposes, the illicit growth of the poppy is extremely difficult to track down. The world's legitimate needs in opium are estimated at 800 tons a year, whereas some 2,000 tons are actually harvested. Thus 1,200 tons are diverted to illicit use in the international traffic in opium.
(See map pages 26-27)

Photo © Holmes Lebel

FROM OPIUM TO LSD

The long history of drugs

by Marcel Granier-Doyeux

ACCORDING to legend, the opium poppy was born on the very spot where Buddha's eyelids fell when he cut them off to prevent sleep from overtaking him. But the pharmacological properties of the poppy and its product, opium, were certainly known long before then.

Sumerian tablets (3-4,000 B.C.) mention the poppy. Assyrians, Egyptians and Greeks have left us written evidence of the use of opium in bygone ages.

According to another legend, which Homer recounts in his *Odyssey*, the beautiful Helen, wife of Menelaus, offered to Telemachus a philter called "nepenthes"—"a potion to lull pain and bring forgetfulness of sorrow." But it was Hesiod (8th Century B.C.) who left the first written mention of the poppy in indicating the existence near Corinth, Greece, of the town of Mekone (town of the poppy).

The Greek historian Herodotus spoke of the therapeutic use of opium as did Hippocrates, the wise doctor of Cos. From Aristotle to Virgil and Pliny the Elder, numerous authors of Greek and Roman antiquity mention both the poppy and opium in their writings.

Certain historians claim that Avicenna, the great Arab philosopher and doctor, died from opium intoxication in 1037 in Persia. In a book published in 1946 (*Opium*, Vigot Frères, Paris), Ihno J. Bensussan suggests that opium was probably introduced to India in the 8th Century, after the Arab invasion in the province of Sind.

But two Greek specialists, P.G. Kritikos and S.P. Papadaki, declared more recently (U.N. Bulletin on Narcotics, Nos. 3 and 4, 1967) that the technique of opium extraction could

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already have been introduced to India twelve centuries earlier by the armies of Alexander the Great. If we study the first references to the cultivation of the opium poppy in India, we find that it is situated in the 15th Century, as mentioned in the records of the reign of the Mogul Emperor Akbar the Great.

One of the first medicinal preparations with an opium base is believed to have been *laudanum paracelsi*, prescribed in the 16th century by the Swiss Doctor Paracelse; but the presence of opium in this medicine has been contested. Thomas Sydenham, the well known English doctor of the 17th century, invented a special preparation of opium and gave his name to a new laudanum.

However, it was not until the beginning of the 19th century that the first opium alkaloid—morphine—was discovered and isolated, and this discovery is sometimes attributed to the German pharmacist Friedrich Sertürner and sometimes to the French chemist Armand Seguin.

While the medicinal virtues of opium have been recognized almost since time immemorial, when no other means were known for calming physical pain, its improper use in later years turned it into a veritable poison. It is difficult to say precisely when the habit of opium smoking first appeared, but some believe it dates from the end of the 17th century.

Photo © Kazuo Kenmochi, Tokyo

The practice seems to have been introduced in China from two directions—from Java and Formosa in the East, and from India in the West. The first "Opium War" (1839-42) which brought Great Britain and China into conflict as the result of the Chinese Government's decision to forbid the importation of opium, can well be considered as the beginning of the spread of opium addiction in that country, which soon took on tremendous proportions.

Imperial China sank into a kind of lethargy. Drug addicts could be counted in millions and their number increased continuously until 1906. In that year, an Imperial edict was issued forbidding, progressively, the growth of the poppy and the use of opium.

Three years later an International Opium Commission met in Shanghai and was attended by representatives from 13 countries. This was the first serious international move to deal with the harmful effects of opium. Like an epidemic, opium addiction was spreading its harmful effects over a large part of Asia, particularly among the most underprivileged peoples, and it was gaining the West.

Opium can be drunk or eaten but it is generally smoked. Opium smoking is a fairly complicated operation which takes a lot of preparation and equipment. Generally the pipe is made of a bamboo stem with a clay

Photo E.M. Androulaki

Photo Georges Daux

THE OPIUM POPPY IN ANTIQUITY

Recent research by two Greek scientists, P.G. Kritikos and S.P. Papadaki, has shown that the opium poppy was known and widely used as a decoration in the Ancient World. It figures on many objects such as statues, brooches, pendants, coins and utensils, unearthed in the Eastern Mediterranean (Ancient Greece, Egypt, Rome, etc). Poppy capsules (above) are reproduced as a decoration (left) to adorn the hair of a Minoan goddess—a figurine made some 13 centuries B.C. Right, a small Greek bronze figure dating from the geometric period (700 B.C.), with a base shaped as a notched poppy capsule.

bowl. The smoker lies down. With a needle, he takes from a box of opium a little lump of *chandu* which is a specially prepared opium extract. The *chandu* is then dried over the flame of a lamp and rubbed between thumb and index finger into a ball which is then placed in the bowl. The pipe is ready. The smoker lights it and slowly inhales the smoke.

But poor smokers cannot afford refined *chandu*. They use the left-overs of rich smokers, the dross, which contains highly toxic substances. And the very poor are reduced to the dross of dross!

Prolonged use of opium will lead the smoker to the final stage of stupor, severe loss of weight and even death. The capacity for work is greatly reduced among heavy smokers and their physical condition deteriorates rapidly.

To satisfy their craving, poor smokers spend a large part of their wages on the drug and deprive themselves of everything else. As they become utterly impoverished they find the drug is their only consolation, and the vicious circle is complete.

Intoxication by sub-cutaneous or intravenous injection of the natural alkaloid derivatives of opium (principally morphine and codeine) is by far the most serious form of chronic intoxication.

Heroin, a semi-synthetic derivative of morphine, is an even more dangerous substance than the natural extracts of opium. It can be inhaled, smoked or taken as an injection. A particularly toxic mixture is that of heroin and cocaine, known as a "speedball", whose use was once common in America.

The synthesis of a number of analgesics which substitute for morphine, complicates still further the problem of drug addiction and the fight against drugs which, by their repeated use, produce "dependence". These new drugs are usually injected, but some produce their effect when simply swallowed.

"Some people think", states a report of the United Nations Commission on Narcotic Drugs, "that a person is free to poison himself if he wishes to and that any effort by society to prevent the addict from taking his drugs is an infringement on individual liberty. This, or course, is an indefensible concept in a modern society, in which an addict not only destroys himself but is likely to harm others in the process."

The coca leaf and cocaine

The coca leaf is associated with an ancient legend which comes from the Cordillera of the Andes. Khunu, God of thunder, lightning and snow, angered by the Yunga chiefs who allowed their people to burn the forests, resolved to punish them. The smoke from the fire had blackened his palaces, the Illimani and the Mururata—two high snow capped mountains in Bolivia. He decided to isolate them from the capital built on the shores of the Sacred Lake (Lake Titicaca, on the border between Peru and Bolivia).

Thus out off from all communication with the *mallcos* (supreme chiefs) and from their main sources of food, the Yungas were forced to lead a nomadic existence and suffered from thirst and hunger. It was then that they discovered the coca leaf. Chewing the leaves gave them renewed strength, diminished fatigue and enabled them to reach Tiahuanaco without suffering from mountain sickness.

Studies made by Dr. Medrano (of Cochabamba, Bolivia) seem to prove that coca originated in the region of Machu Yunga, in the former High Peru (now Bolivia). According to a theory which has been accepted by many authors, the Arawaks learned the use of coca from their conquerors, the Chibchas.

After their migration across the Andes, they spread the custom of chewing coca leaves in regions which are today Peru and Bolivia. In the course of their migrations, the Chibchas, Aymaras and Quetchuas are thought to have propagated the growing of the coca leaf, and this later spread to Central America, the West Indies and the Northern part of South America.

THE Inca, Mayta-Capac (1230 AD), and one of his successors, Rocca (who died in 1315) are very probably responsible for spreading the use of coca. Yahuar-Huacac (who died in 1347) discovered in his conquests, regions where the Indians worshipped coca as a divinity. The use of the coca leaf was widespread among the Incas by the end of the 14th century.

In 1857, Karl von Scherzer brought back from a trip to Peru some coca leaves which were given to the research laboratory run by the German chemist Friedrich Wohler and analyzed by Albert Niemann, who isolated from them an alkaloid—cocaine. This natural product was the first local anaesthetic used in medicine.

The coca leaf has had many defenders, but even more detractors. The controversy still goes on. Carlos Gutierrez Noriega of Lima and his school have proved the harmful effect of chewing coca leaves.

Cocaism, as the habit of chewing coca leaves is called, is entirely different from cocainism which is the consumption of cocaine extracted

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Coca chewers of ancient Peru

By the end of the 14th century coca-chewing was widespread among the Incas, but was practised earlier among other Andean peoples. Top, Mochican statuette of a man holding a gourd containing lime for mixing with coca leaves. Lime hastens the breakdown of the coca leaves. Centre, Hueca figurine showing similar scene. Mixture was chewed to release minute quantities of cocaine. Bottom, coca chewer in action. Two lower terracotta figures were found in ancient Peruvian tombs.

Photos A. Navarro Neira

The sacred mushrooms visit the laboratory

from the leaf. Cocaine can be taken by inhalation, or by sub-cutaneous injection; some cocaine addicts inject it into their veins, either pure or mixed with heroin—the "speedball" referred to earlier. But cocaism is by far the more widespread. It affects a vast number of persons in the Andean Cordillera.

The *coquero*, or chewer of coca leaves, does not really chew the prepared "quid" (chique); to extract the juice, he sucks it, moves it around in his mouth and wedges it between teeth and cheek. An inveterate coca chewer can easily be recognized by the deformed shape of his cheek produced by this habit.

To extract the active ingredient of the leaves by chewing, a strongly alkaline substance must be added and this is provided by quick-lime, the ashes of *quinua* (an Andean cereal) or a calcareous powder obtained from crushed shells.

THE harmful effects of chewing coca leaves have been clearly established by the Commission of Enquiry appointed by the United Nations in 1949, and of which the author of this article was a member.

Cocaine, the active constituent of coca, causes well established changes in the intellectual faculties of the person who habitually chews the leaf of this plant. Numerous studies and particularly those of Gutierrez Noriega, have focused attention on the serious difficulties which cocaism creates for education.

Let me quote an example: "These difficulties begin in the home; parents who chew coca are not interested in sending their children to school and even force them to acquire the habit of this drug. The majority of the teachers in rural schools in Cuzco and Puno have told us that children with the coca habit have a very limited capacity for learning or are not interested in being educated. They add that such children are very shy, introverted, lacking in will power, and with little inclination to play..."

There is without doubt a connexion between cocaism and illiteracy. A statistical study shows that the percentage of illiterates in different regions is closely related to the quantity of coca leaves consumed.

Moreover, even if it could be claimed that the coca leaf has nutritive value, under no circumstances can it be regarded as a substitute for a proper diet. By deadening the feeling of hunger, it creates a vicious circle leading to a constant state of malnutrition.

It has never been scientifically proved that coca chewing is a useful factor, still less a necessary one, in acclimatization to life at high altitudes. Nor is there any good reason for supposing that cocaine acts in a different way on persons living at high altitudes or produces a different effect upon them. Cocaism which affects millions of human beings in South America, is a habit which is harmful to the individual who practises it and, in many cases, to the community.

The coca chewer has generally a reduced output of work. He lacks the ability to undertake a job which requires concentration and skill; he is incapable of assuming responsibility; more prone to accidents at work. If one adds to this the damage done by the leaf to the coca chewer's health and that of his children, one can easily see the harmful effects of coca on the economy.

Cocaism is not an isolated phenomenon. It is the result of a series of unfavourable social, economic, cultural and hygienic factors.

Any campaign against cocaism—the ancient vice of the New World—has to take into account the need to improve social and economic conditions, to provide better and more extensive education, to raise standards of health, to improve nutrition and working conditions, to provide proper housing and to combat superstitions and false beliefs. Finally, there is need for an intensive educational campaign to eradicate this injurious habit once and for all.

Some hallucinogenic drugs

The Huichol Indians from the Sierra Madre in the West of Mexico, used to set out on a pilgrimage every year to collect a supply of the *peyotl* cactus. They cut the head off and dried the juicy rings in the sun. Once dry, these slices of *peyotl*, also called "*mescal buds*" were ready for use. They played a very important part in religious ceremonies.

Peyotl brought on hallucinations which the Indians took for prophetic visions. In the 16th Century, Fray (Friar) Bernardino de Sahagun wrote: "Those who eat it see things which are frightening or laughable... This plant gives them the strength and courage to fight, by freeing them from fear, thirst and hunger... It is even believed that it protects them from all danger..."

The particular nature of the hallucinations produced by *peyotl* is due to mescalin, its active constituent.

Since the 16th century, the sacred mushrooms of Mexico and their intoxicating, narcotic effects have been mentioned by many writers. The Indians called them *teonanacatl* (flesh of God). Eaten raw, they produce strange hallucinatory effects, with dreams often accompanied by hilarity, excitement or torpor, fantastic visions or a general feeling of well being.

Most of these hallucination-producing mushrooms of Mexico belong to the psilocybe family. Prof. Roger Heim of the Paris Museum of Natural History, managed to grow them in a laboratory and thus provided sufficient quantities of active substances for analysis. This enabled Albert Hofman, the Swiss chemist, to reproduce these substances synthetically, and notably the drug psilocybin which is today used in psychotherapy.

Another mushroom, which grows in many other countries, and has for long been talked of, is gaining new fame nowadays. This is *ergot*, a fungus growth found on barley and used by midwives in past centuries to speed delivery. It was also the cause of the many mass poisonings known as "St. Anthony's Fire".

IN 1943, Albert Hofman, who was studying the melting point of a by-product of ergot, discovered a strange substance. A new drug—LSD 25—destined to cause a stir in the world, was born.

Few drugs have sparked off as much discussion and controversy or given rise to so many misconceptions. There is no definite proof of its therapeutic value in medicine, whereas it does represent a hazard to health. Those who take it claim that it represents an escape from the harsh reality of everyday life, enabling them to take a "trip," as they put it, thanks to its "psychedelic" (consciousness-expanding) properties.

The United Nations Economic and Social Council has recommended that LSD be placed under special control and that its use be restricted to approved scientific and medical research. Public concern has brought the abuse of the hallucinogens (especially LSD) in North America and Europe to the forefront of international attention.

A special committee established by the U.N. Commission on Narcotic Drugs to study the problem of substances not under international control, singled out LSD "as presenting the most acute problem and showing signs of such spread as to demand immediate action".

The hallucinogenic properties of this fungus, the Psilocybe mushroom, were known to the Maya priests of ancient Mexico, and used by them in religious ceremonies. Psilocybin, the active principle of this mushroom, is now produced synthetically and used in psychotherapy. Taken for any reasons other than therapeutic ones, it is a highly dangerous hallucinogenic drug.

Photo Laboratoires Sandoz

One of the great controversies of today evolves around the dangers incurred by the use of LSD and other hallucinogenic drugs, the amphetamines and certain tranquillizers. On the following pages, the "Unesco Courier" presents the views of three international authorities on these questions. The authors' conclusions are based not only on their own broad experience, but the findings of scientific research in different countries. Richard H. Blum is director of the Psychopharmacology Project at Stanford University (U.S.A.). Karl Evang (page 18) is Director-General of Public Health in Norway. Grigory Avroutski (page 20) is head of the Psychopharmacological Section of the Institute of Psychiatry, in Moscow.

MIND-ALTERING DRUGS

(LSD, Marijuana, Hashish, etc.)

A SCIENTIFIC APPRAISAL

by Richard H. Blum

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PSYCHOACTIVE drugs, those pharmaceutical and naturally occurring compounds which affect man's mind, have long been in use. Alcohol was the earliest known, for it was used at least by 6000 B.C. as hunting and food-gathering peoples settled into agricultural pursuits in Asia Minor and the Middle East and learned about fermentation and storage. Opium also has an early history, probably being used 2000 years B.C. in the Eastern Mediterranean.

The range of such materials used in healing, in religion, in ceremonies and, sometimes, socially and individually, was broad. A great compendium showing just how many naturally-occurring drugs were used medically in the Eastern Mediterranean area in early times is that of Dioscorides, a Greek herbalist living in Asia Minor in the first century after Christ.

In mid-Asia the literature of the Vedas contains many medicinal references while in China there are early pharmacopeias attesting to the wisdom and extent of traditional medicine there during early civilizations.

Indeed, much of the pharmacy of today is derived from these early beginnings; it is estimated that about half

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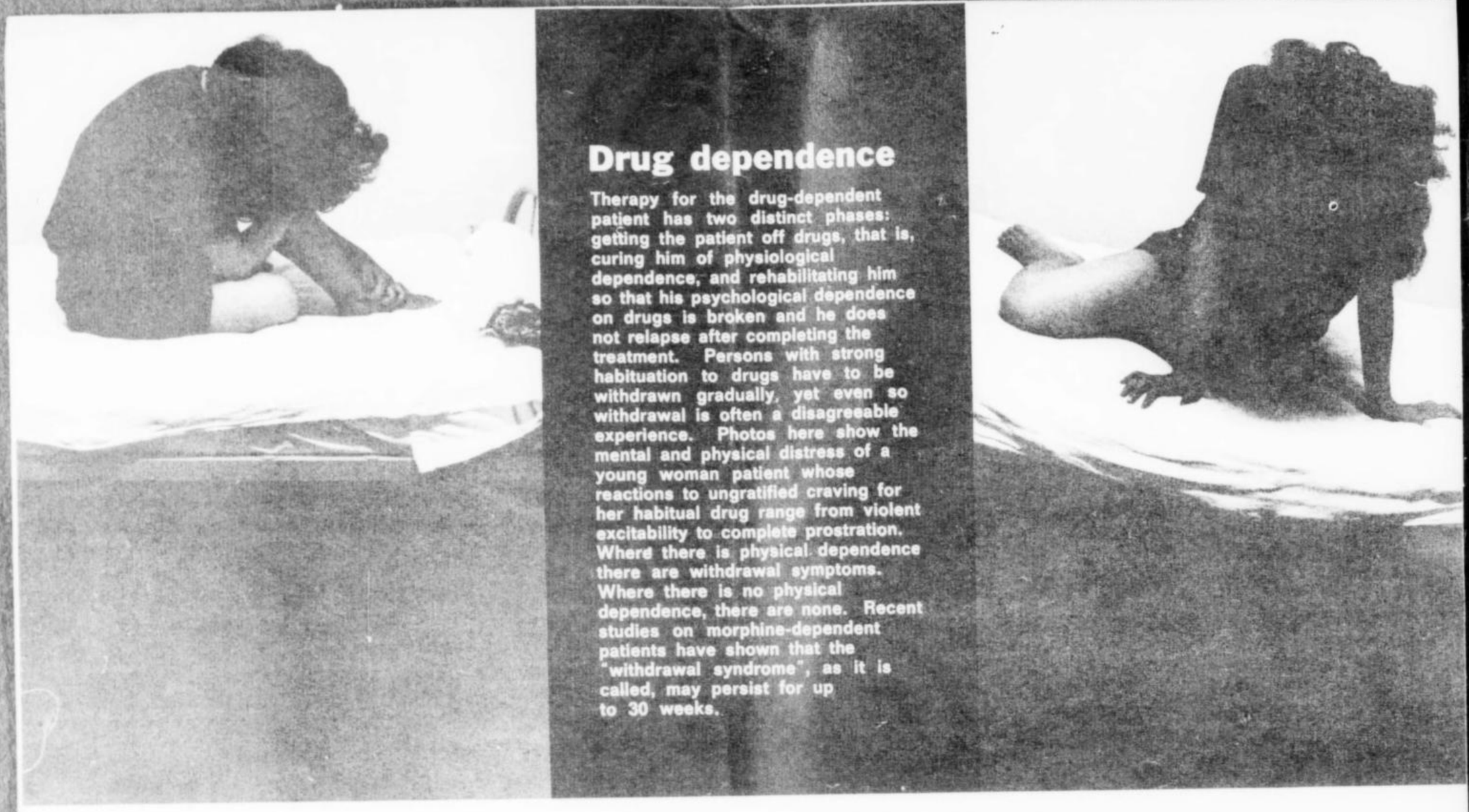


Drug dependence

Therapy for the drug-dependent patient has two distinct phases: getting the patient off drugs, that is, curing him of physiological dependence, and rehabilitating him so that his psychological dependence on drugs is broken and he does not relapse after completing the treatment. Persons with strong habituation to drugs have to be withdrawn gradually, yet even so withdrawal is often a disagreeable experience. Photos here show the mental and physical distress of a young woman patient whose reactions to ungratified craving for her habitual drug range from violent excitability to complete prostration. Where there is physical dependence there are withdrawal symptoms. Where there is no physical dependence, there are none. Recent studies on morphine-dependent patients have shown that the "withdrawal syndrome", as it is called, may persist for up to 30 weeks.

The revolution in psychiatry

of all drugs prescribed in the United States each year contain a naturally occurring drug as the main, or one of the main, ingredients.

Today, however, in medical use and in social use as well there are many more substances available than our ancestors would ever have imagined. Modern substances also tend to be much more powerful than those known in early times. Because of the great variety of drugs in use today, it is helpful to classify them by their most likely effects on man.

The classifications developed are guides only, since even within the limits of normal dosage no psychoactive drug affects every person the same way and, indeed, may well affect the same person differently from one day to the next depending on the person's condition and his environment. The classifications are also limited because most of these drugs simultaneously affect humans in a variety of ways.

Indeed, scientists are not yet aware of all the changes in human moods, cycles of sleep and wakefulness, sensitivity to anxiety and pain, coherence of thought, sensory and information-processing capacities, social capabilities, learning and memory functions, drive and motivational levels, and bodily performance capacities which are affected by any one of the psychoactive drugs.

Thus, one must say that the science of psychopharmacology which has as its goal the understanding of the effects of mind-altering drugs—what these drugs are and what they do, how they act on and in the body and what other influences affect drug outcomes—is just at its beginnings.

Keeping these limitations in mind, we can set forth the following major groups of psychoactive drugs.

Sedatives and tranquillizers

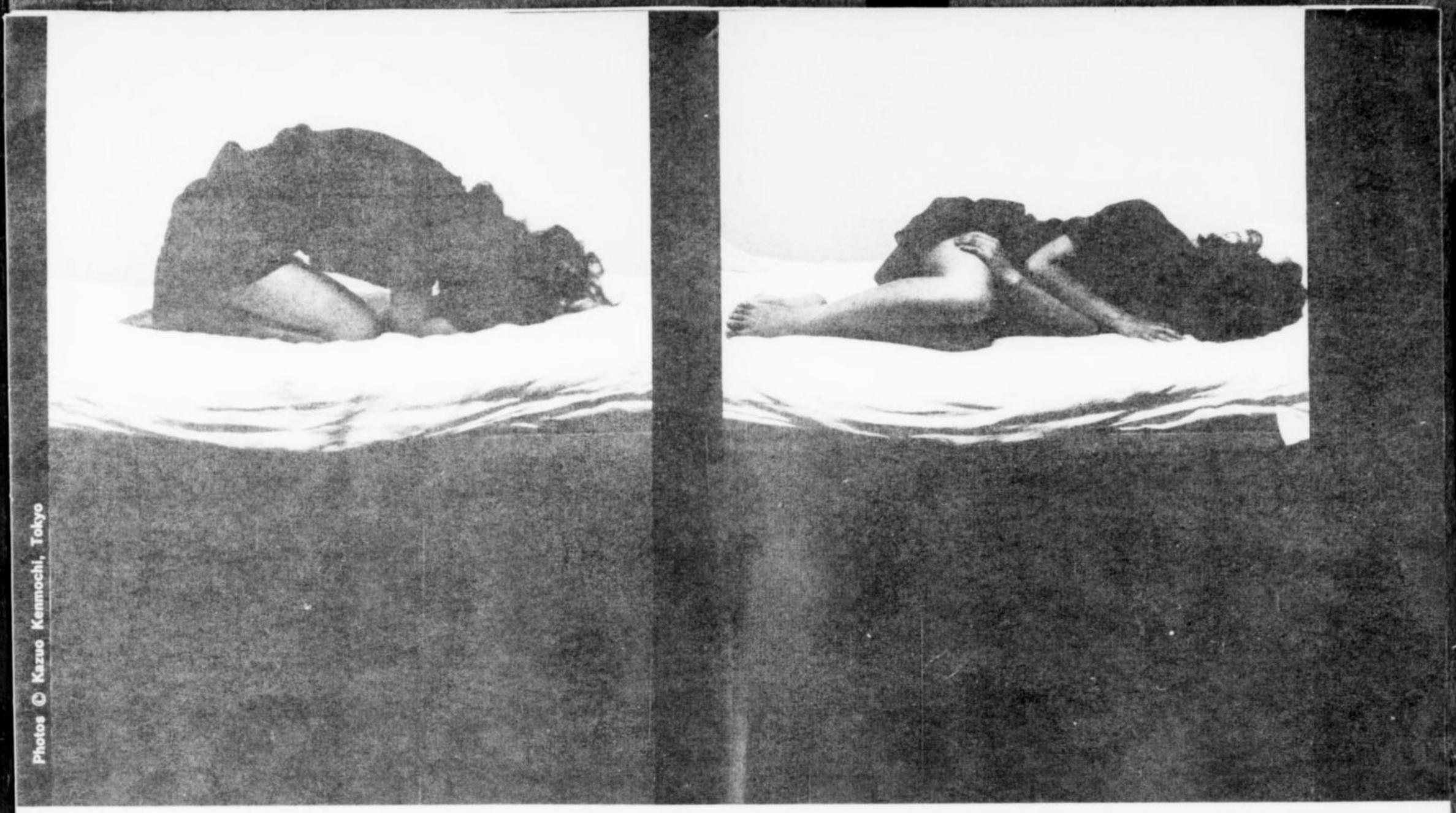
Although alcohol and opiates were early used as drugs to produce relaxation and sleep, it is to Asia that we look for the earliest application of tranquillizers as such, drugs which reduce anxiety and excitability. There, and in Africa too, natural plants have long been used whose effects include such relief.

The first pharmaceutical tranquillizer used in the Western countries was derived from research in India for, beginning in 1931, Indian scientists discovered the ability of Rauwolfia to reduce blood pressure. After using this drug for hypertension it was discovered, in the early 1950s, that it was very beneficial in treating mental illness. The resulting drug, reserpine, had been synthesized in Switzerland beginning in 1947.

The application of this drug in the treatment of mental disorders marked the beginning of a psychiatric revolution and the birth of modern psychopharmacology. The introduction of reserpine was shortly followed by chlorpromazine, another tranquillizer, and in the intervening fourteen years from that date, several sub-groups have evolved. Among the tranquillizers are some characteristically termed the minor tranquillizers such as meprobamate, diphenylmethane, and chlordiazepoxide, etc., and others termed the major tranquillizers (chlorpromazine, phenothiazine, reserpine, perphenazine, etc.).

Both groups of tranquillizers have widespread application in medical practice. The minor tranquillizers are often prescribed for persons who are tense or nervous. The major ones are used in mental hospitals where the results over the years have been so successful, especially in combination with new methods of community care, that the number of persons hospitalized for mental disease has dropped markedly. Many of these released patients are helped to live nearly normal lives by maintaining their intake of tranquillizers. At present, minor tranquillizers account for perhaps 15 per cent of all medical prescriptions in the United States.

These drugs can have unexpected and undesired effects as well. Unexpected idiosyncratic outcomes are called "side" effects; usually that term implies unpleasant or dangerous results in the person taking the drug. Because we shall soon be discussing



Photos © Kazuo Kenmochi, Tokyo

problems in the unsupervised or social use of drugs, it is well to note that the minor tranquillizers have been described as producing emotional dependence, physiologic dependence, and drug tolerance, all of which are components of what used to be called "addiction" but which is now considered more broadly under problems of "drug dependence" as such. The major tranquillizers can also produce "organic" complications, that is neurological disorder, but do not produce psychic not physical dependence.

The minor tranquillizers are usually considered closely akin to sedatives in their action and effects, although as the names imply, the former tend to relax and the latter tend to produce sleep.

Sedatives as pharmaceutical products are of earlier origin than tranquillizers. The barbiturates are the group of sedatives most commonly prescribed: these were introduced about 1913 and at present enough are produced to provide several dozen doses of sleeping pills per citizen per year in the United States. Other sedatives which are less widely prescribed include the bromides, chloral hydrate, glutethimide, and certain other compounds including anti-histamines, belladonna, aspirin, etc.

The sedatives, as their name implies, are useful in inducing sleep or in slowing people down, but they can have side effects too. Barbiturates especially are associated with physical and psychological dependence as well as the development of tolerance. The bromides, although not implicated in physical dependence, can produce psychoses when taken in large amounts (as can many substances) and, like any mind-altering drug, can be (although they rarely are) a basis for psychological dependence.

The sedatives, as opposed to newer tranquillizers, appear more dangerous in that coma and death occur more readily with small doses, especially if there is another drug such as alcohol present to add to their effects. Barbiturates are also described as producing more noticeable impairments of judgement and motor (muscular) coordination, and as being associated more often than tranquillizers with dependency reactions and, as a consequence, with convulsions, psychosis or death should a person be withdrawn from his heavy doses of the drugs.

Stimulants and Anti-Depressants

We can distinguish five classes of stimulants. There are those which are minor stimulants, in widespread social use; these include coffee, tea, khat (in the Arabian and East African areas), betel nut, kola, kava, the cola beverages, and chocolate and cocoa to a very minor degree. Caffeine is also present in non-prescription stay-awake preparations. The drugs present few problems with the exception of khat about which there is some debate as to its effects. It is our view that these effects are minor.

A second stimulant is nicotine which is heavily used around the world in cigarettes, pipes, cigars, snuff, and chewing tobacco. It is a drug with no recognized medical use but which in social use can easily lead to psychological dependency and the development of tolerance. Physical dependency is also found in that the withdrawal symptoms of heavy smokers can be substantial. The long-term effects of smoking are clearly implicated in the development of cancer, although nicotine itself may or may not play a role.

A third class of stimulants are the amphetamine compounds (there are also pipradrol and methylphenidate types). These are widely employed to treat narcolepsy (a compulsive tendency to attacks of deep sleep), to combat fatigue and depression (sometimes effective) and to assist obese patients in reducing (very rarely effective). They promote alertness and activity and, in high doses, produce irritability, excitement and toxic psychoses. Continued use can be associated with psychological dependence, tolerance occurs, and there are some scientists who report mild physical dependence as well. In any event, such physical dependence as there may be is very minor as compared with opiates or sedatives.

Cocaine, derived from the coca leaf chewed in the high Andes, is also a stimulant. The coca leaf itself is analgesic, reducing sensations of cold, fatigue, pain, bad taste, or hunger. Cocaine is used medically as a local anesthetic though much less so than in former years.

However, in its non-medical (and in most countries, illicit) use it is taken intravenously or sniffed in order to achieve feelings of pleasure and

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'Hippies' and the dangers of a drug-centered life

strength. Such use can lead to hallucinations, delusions, excitement, as well as digestive disorders and possibly convulsions. Although very strong psychological dependence can occur there is no evidence for physical dependence with cocaine.

A fifth class of stimulants are usually termed anti-depressants and include monoamine oxidase enzyme inhibitors and tricyclic compounds (imipramine, amitriptyline, etc.). These preparations tend to reduce melancholy or chronic depression and some, at the same time, reduce alertness and produce confusion in thinking. There is no evidence of dependency on these drugs developing. The drugs are used almost exclusively in psychiatric treatment.

Hallucinogens

This classification includes quite a range of drugs, some of which have been used for many centuries—mushrooms, peyote, ergot, cannabis, and a variety of South American plants—and some of which are dramatic recent discoveries of which LSD-25 is the best known.

Although the classification implies that hallucinations are a most probable effect, that is often not the case. Changes in sensory experiences, euphoria, anxiety and anxiety reduction, peculiar contradictory emotional experiences, altered perceptions of self, increased but more narrowed alertness, reduced learning ability and, in high doses, confusion and psychoses, can all be outcomes.

Cannabis (marijuana, hashish) is the substance about which there is the most current debate, for even though its use has been known for several thousand years, a scientific assessment of its affects under varying conditions of dosage and administration, or on subjects of differing nutritional or psychological status remains to be completed.

When used in mild doses by stable persons, few ill effects are reported; when used in heavier doses by malnourished or unstable persons there are reports of bad outcomes, for example psychosis, apathy, and psychological dependence.

Historically, most of the hallucinogens have been employed in folk medicine, in religious ceremonies, and also socially or by individuals to produce altered states of consciousness or improved moods. At present cannabis is used in Asia in traditional medicine, peyote and some mushrooms are employed in healing and religion by American Indians, and LSD and related pharmaceutical preparations are being tested as treatment aids for psychotic children and for alcoholics. At the moment, the greatest scientific potential for the hallucinogens appears to be in pharmacological and psychological research rather than in treatment itself.

Trends in use of psychoactive drugs

When we look at the historical and anthropological evidence, certain trends in the use of drugs emerge. In the first place, almost every society known to man—and there are only three or four exceptions we have been able to identify—have used one or several psychoactive drugs (alcohol included). Secondly, small societies or tribes which are themselves stable or well integrated appear to use these drugs without apparent ill effects. Use in such settings is likely to be religious and medical but also to be ceremonial in the sense that drugs are foci of attention and have symbolic value.

In spite of these "formal" purposes in use, even in small tribes individuals seem to enjoy drug use and to find that drugs can alleviate distress and facilitate sociability. Nevertheless, tribal use is almost always controlled by custom and by the presence of others.

As societies have become more complex, especially as agricultural societies became urban or small tribal groups experienced the impact (through conquest) of contact with new cultures, changes in drug use, in effects, and in appraisals of drug significance appear.

Several thousand years before Christ, alcohol was the first drug identified with "abuse," which can mean anything from moral or legal disapproval of drug use to concern about drug-induced behaviour to alarm over damage to health.

During the period of Greek and Roman medicine, there was awareness of the health danger in certain drugs, opium and hemlock for example, but little evidence that people were taking these dangerous substances except in limited quantities for healing (or to induce death as with Socrates).

The next drug to be the subject of any public alarm was cannabis which during the Crusaders' time became the subject of the legend of the Assassins, a story which held hashish capable of making men killers. That myth is current even now though it is unsupported by scientific evidence.

Mushrooms and ergot, a plant parasite, both containing alkaloids from which modern hallucinogens have been derived, were probably early identified as producing illness (St. Anthony's Fire, for example) but their use to produce altered consciousness was not a source of public concern until the 19th century at which time observers of Siberian tribes using fly agaric were alarmed about their conduct.

As for the concept of "addiction," that is recent, not arising until the late 18th and early 19th centuries when literate users and curious physicians observed the effects of long-term use of opium. Subsequent to those observations, the potential "addicting" qualities of other drugs were observed.

Very recently the World Health Organization, recognizing that the concept of "addiction" has itself been abused and is scientifically inadequate, has recommended a new terminology which rests upon descriptions of the kind and quality of "dependency" associated with drug use.

As a general statement one may say that almost any psychoactive drug which relieves pain, produces pleasure, or enhances sensations or interpersonal relations can become the object of psychological dependency. Physical dependency, which implies tolerance and withdrawal symptoms, occurs with fewer drugs but these include barbiturates, some tranquillizers and possibly the amphetamines as well as alcohol and opiates (narcotics).

At the present time we are witnessing the rapid introduction of new kinds of drugs, most of which are produced by the pharmaceutical manufacturers, but some of which are folk discoveries imported to the Western world.

The consumption of psychoactive drugs is increasing rapidly. It is estimated that in the United States, for example, enough psychoactive drugs (excluding opiates, alcohol, etc.) are produced to provide over 60 doses per year per man, woman and child.

Illicit distribution and lack of adequate medical supervision constitute a large but unknown proportion of the use of these drugs; furthermore, in the United States production and consumption appear to be rising at a rate of perhaps 10 per cent per year.

Studies of normal populations show, as would be expected, that most city people use these drugs, either on direct prescription from physicians or on a home remedy basis. A growing number, especially among young people, also procure and use them illicitly. The amphetamines, cannabis and other hallucinogens are particularly popular in the United States.

College student studies suggest the most common illicit pattern is experimentation and casual use rather than any heavy use. We find so far that something like 25 per cent of college students have employed amphetamines, 21 per cent cannabis, and 5.6 per cent the hallucinogens.

In spite of widespread use of psy-

choactive drugs in the United States, some of which is frankly illicit and some of which is simply inadequately supervised medically, the "bad results" including dependency, illness or behavior dangerous to oneself or others are sufficiently frequent to be a cause for concern even if such untoward effects occur relatively infrequently among casual users. Most people seem to use them safely, those who do not, seem most likely to be persons already disadvantaged by personality disorder, poverty, or other forms of social or personal deprivation or alienation.

Nevertheless, even healthy persons from adequate social environments can experience either immediate or long-term ill effects from use of psychoactive drugs which is one reason for calling for medical supervision and individual caution in their use.

The extent of use and kind of problems occurring vary from one part of the world to another. In technologically advanced countries the trend toward widespread consumption of pharmaceutical preparations typically is accompanied by some illicit use by a few young people; Japan, Sweden, England and Denmark have reported amphetamine "abuse."

Most European countries have their "hippies" who illicitly use cannabis and hallucinogens as well as amphetamines; in African cities cannabis and amphetamine use among young people is a matter of concern, and in remoter nations such as Nepal and Afghanistan local authorities are worried lest their influx of hippie tourists expose local youth to a drug-centered life which many people around the world would agree is socially unproductive, psychologically limiting and which poses health dangers.

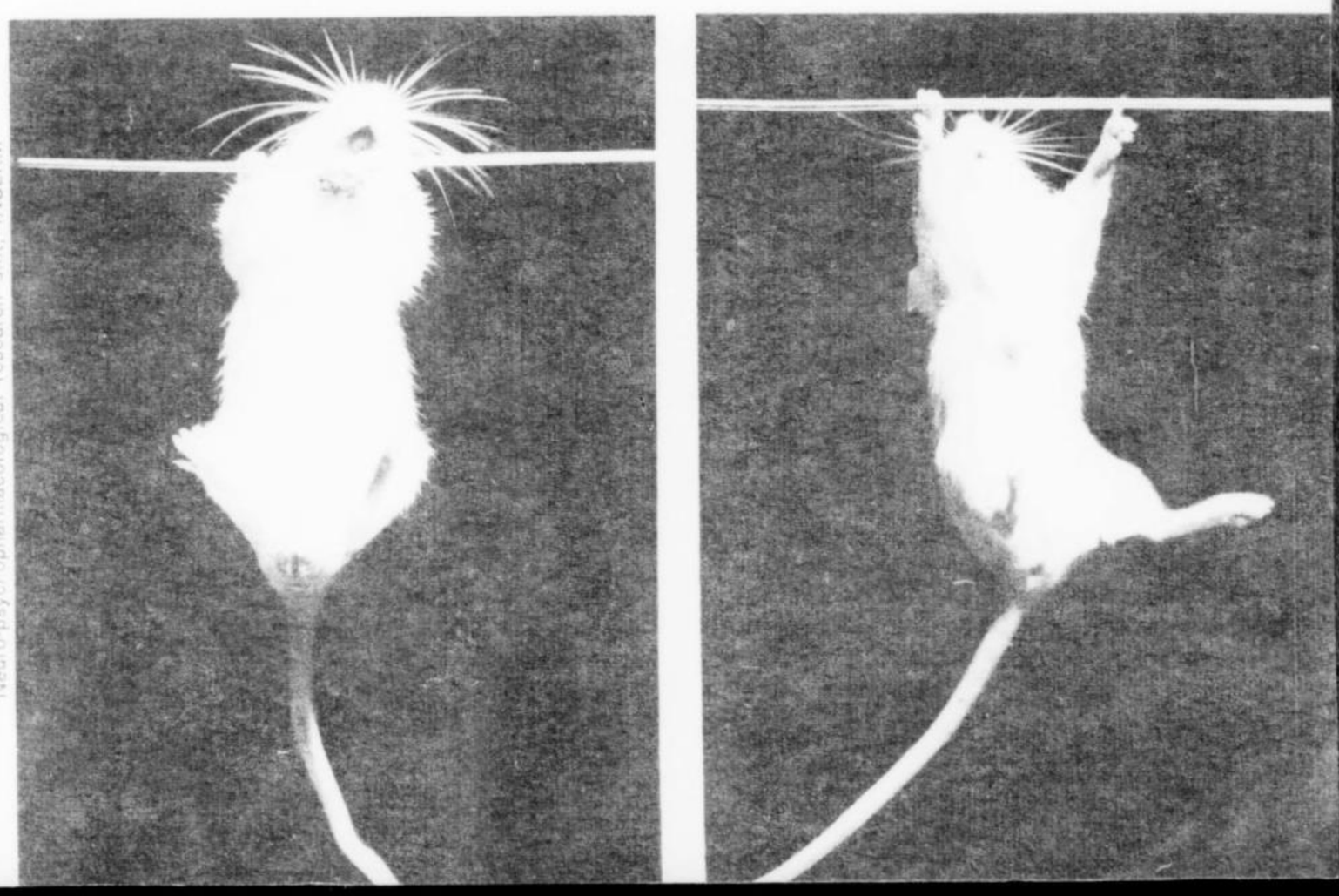
In evaluating trends it is important to maintain perspective. Psychoactive agents are medically valuable and one must expect more of these drugs to be discovered and prescribed. The use of pharmaceuticals is part of urban technological culture—as is at least some of the despair and nervousness which they relieve. Experimentation by youth must be considered a normal phenomenon. It is not surprising that such experimentation with drugs is quite frequent where these agents are readily available. But experimentation is not to be confused with heavy illicit use, as in the case of hippies, chronic hashish eaters (or alcoholics).

The latter patterns of "abuse" will also continue, but the goal of most public health authorities and policy planners is to limit them by controlling production and distribution of drugs, to restrict use to medically supervised treatment, to provide treatment facilities for those suffering ill effects, to support research, and to provide, through education to physicians, citizens, and growing children knowledge of the potential benefits and dangers of the use of any powerful substance which affects the mind.

Photos © Moeschlin and Bauer - Laboratoires Sandoz

Are you a cat or a mouse?

When LSD is given experimentally to animals it triggers off startling changes in behaviour. Cat seen in top photo spits and shows its teeth when confronted by a mouse, but is in fact terrified by the tiny creature and seeks refuge in a corner. LSD causes monkeys to panic and carp to swim close to the surface instead of near the bottom of their tanks. Mouse (photos below) lost power of agility when given a tranquillizer and was unable to climb back on to the rope. Under the influence of mescalin, a spider spins webs with many imperfections.



From "Le Livre de la Santé" - Photos Harry Gruyaert
Neuropsychopharmacological research unit: INSERM

LSD

NEW MENACE TO YOUTH

by ***Karl Evang***

People who indulge in psychedelic drugs like to claim that LSD, mescalin, psilocybin, marijuana and hashish fill them with joy and rapture and enrich their inner life. They call such drug-taking a soul-revealing experience that permits the individual to discover new and subtler aspects of his personality, and to distil the impressions from the external world filtering through the effects of the drug.

The truth is that all of these substances are dangerous. What, for example, is their effect in biological, chemical or medicinal terms? Are they habit forming? Are they harmful for the body or the mind? Do they cause mental illness or other serious disturbances? Can they provoke a person to committing suicide? When questions such as these are raised the problem is placed in its proper perspective, attention is focussed on the reactions that occur from taking psychedelic drugs as much as on the individual who takes them.

Many people do not fully realize that the problems raised by psychedelic drugs not only directly affect the individual who takes them, but have much wider, social consequences. Man is not simply a two-dimensional being made up of just a body and a mind. This becomes much more obvious when a person falls ill, and the third dimension—his role in society—is clearly affected.

Human beings cannot function in isolation, for isolation is tantamount to stagnation, the death of the spirit, the destruction of the body. Man is the product of his environment, for the most part, and is entirely dependent on the impressions and stimuli that reach him from the world around him. And as the great Pavlov rightly put it, man is a being made up of reflexes.

The World Health Organization has clearly stated that any evaluation of the effects of psychedelic and similar drugs that does not take into account all aspects of man is incomplete.

Psychedelic drugs, whether habit forming or not, all seem to have one characteristic in common in that they weaken the need for human contact and social relations. They lower the overall quality and degree of social relationships which every person as a member of society must share. They limit and impoverish his range of interests, make him self-centred and a prisoner of his own ego.

The individual loses interest in his former friends and the life of the community, and loses all desire to take part in the events of his time. Nor is there evidence of any artistic activity being released by the use of psychedelic drugs despite the violent sensory manifestations, including visions and hallucinations, that are experienced.

To justify their indulgence in psychedelic drugs the argument is often advanced that it helps the individual to escape from established society, to break out of the straightjacket, to be liberated from social conventions, to assert his discontent at being a mere

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KARL EVANG *is Director-General of Public Health in Norway. This article is based on a series of three talks recorded by the author for the International University of the Air, and broadcast recently by the French radio network (ORTF) as part of a special presentation on "psychedelic drugs."*

To warn the public of the effects of hallucinogenic drugs, the Czechoslovak TV network recently re-enacted the tragic death of a young girl who hurled herself from a window under the influence of modern drugs (photos left and below). Hallucinogens have been known to create "illusions of grandeur", individuals believing that they have superhuman powers and can fly through the air. After taking LSD, a handsome American actor dowsed himself with petrol and set himself afire. Though he did not die, he is so disfigured that his career is ruined.

Photos © "Czechoslovak Life," Prague

pawn in what they term "the big, cynical game of world politics", and so on. Let us take advantage of life they say, before it is too late. This is all very fine but it adds up to nothing more than organized alienation and renunciation.

The tragedy is that psychedelic drugs find their adepts not only among young people who have been deprived of love and affection or who suffer from personality disorders, and hence present problems of adaptability, but also among a portion of the youth of today who do not present such problems, who are our hope for the future and could work to build a better world for tomorrow than the one we have today. Luckily, the number of young people who fall victim to these practices is very small indeed.

What has caused concern among public health authorities, social security officials, criminologists and in the home is that these potent pharmaceutical products, especially LSD, are not subject to legislation in many countries and are now freely used by people who are not ill.

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It was not clear at first whether the problem really merited attention, but as the number of tragic cases increased, the outcry became louder and louder.

In the autumn of 1966, a special committee set up by the Economic and Social Council of the United Nations to deal with this question, expressed "its deep concern over the excessive and growing use of LSD with its serious consequences, both for the health and safety of the individual and that of society, and invites governments to take the necessary measures to impose strict controls on the importation, exportation and production of LSD and similar products and place the trade in this product under the control of competent authorities."

The committee recommended that LSD should be used only for medical research and under strict medical control. It urged governments to take the necessary steps to prevent any other use being made of this substance. This is an unusual step to take with regard to a pharmaceutical product and unusually harsh language for an international official committee.

But it is not the medical use of LSD and similar products like psilocybin, mescalin, etc. which made these drastic measures necessary. Over the past 20 years the use of the drug for medical purposes has declined sharply. It is now limited to the diagnosis and treatment of certain serious nervous disorders, particularly neuroses.

It is possible that at some future date the use of these substances may prove of use for patients who are too ill to live in society and who have had other treatments without success.

A growing number of countries (22 as of January 1968) have taken action on the recommendations of the U.N. special committee and have placed LSD in the same category as other outlawed drugs such as marijuana, hashish, heroin and similar substances. This means that the unauthorized possession, sale, distribution and use of these drugs is illegal and punishable by law.

Let us therefore examine the dangers that the use of LSD represents.

The effects of LSD can be divided into four main groups, but in all of them the reactions can occur suddenly and within a very short time after the drug is taken. (These effects may occur in varying intermixture.)

In the first group, LSD stimulates a sensation of unlimited power and strength of virtual omnipotence. We call this state "the megalomaniac reaction". There is the example of a girl of 19 who, after taking LSD, was convinced that she could fly like a bird. She jumped out of a window and fell to her death. A young man of 21 announced that all motor traffic would respond to his command. He stepped into the middle of the street, raised his arm, shouting "Stop", and was killed instantly.

In the second group, the use of LSD has a completely opposite effect. It produces a state of deep depression, of despair and discouragement. The overwhelming feeling of being worthless, sinful and incompetent often leads to suicide.

The reactions to LSD in the third group are paranoid disorders. The subjects suffer profound anxiety and believe they are being threatened by others who wish to kill them, in most cases by persons in their immediate surroundings. And as attack is the best method of defence, they often inflict serious injuries and even go as far as murder, in the belief that they are defending themselves.

The fourth group of severe reactions is characterized by a state of general confusion, the symptoms of which resemble mental diseases or insanity, illusions, hallucinations, incoherence, irrational feelings, little or no sense of time, etc. These conditions are usually short-lived, but can sometimes continue for long periods. A little girl of five lost her mind after eating a lump of sugar which she found in the refrigerator and on which a drop of LSD had been placed. It took nine months for her to regain her normal health.

In other words, a normal healthy person who takes LSD runs the risk of mental illness, of becoming fundamentally irresponsible, of resorting to murder or committing suicide.

How then can we explain the cult of LSD and the eager publicity given to its "prophets"?

The answer seems simple: there is no limit to human curiosity, to the lust for new sensations of any kind. All of us feel more or less frustrated by social conventions, tied to hierarchical values not of our making which put us in situations where we feel ill at ease. Then there is our work which for the most part is a dull routine.

Throughout history there have been intoxicants to break these bonds, either for short periods or long ones.

LSD and similar substances like psilocybin, mescalin, Indian hemp, and other hallucinatory drugs can free a person from all constraints by intoxicating the sensory faculties. For a moment there may be a feeling of liberation, renewal, freedom from the bonds of life. But afterwards one quickly finds that everything was an illusion. Drunkenness is no liberation; it is a dungeon immuring its prisoner.

The so-called "prophets" have predicted that important new knowledge concerning the human soul will come from experiments carried out with psychedelic drugs such as LSD. So far nothing remotely like this has happened. Not one single fundamentally new thing has appeared. The only result has been to confirm the grave dangers which the ignorant invite when they tamper with the volcano which is the sub-conscious mind.

Tranquillizers are not narcotic drugs but nevertheless constitute a hazard with prolonged and continuous use. It has been pointed out that people who abuse these drugs tend to rely on them to solve their difficulties, thus reducing their ability to react and face up to life's everyday problems. In many countries tranquillizers and "pep" pills (amphetamines) are supplied only on medical prescription.

THE VOGUE OF THE PILL (tranquillizers, that is)

by Grigory Avroutski

WHO photo - K. Brodie

THE second half of the 20th century has seen remarkable progress in the fields of chemistry and pharmacology; with the advent of antibiotics, man suddenly found himself in possession of a wide range of medicines for curing or alleviating the most varied diseases.

New scientific discoveries have enabled man to gain still more victories over Nature. Nevertheless, repeated danger signals lead us to ask ourselves today if these gigantic forces which have been unleashed are not slipping out of our control like some Sorcerer's Apprentice.

The simplicity in the use of modern drugs and their safety in terms of secondary effects and complications have led them to be used increasingly for general "routine therapy", as it is called, which patients can follow at home for extended periods, often years, instead of in accordance with strict medical prescription.

Since such treatments are relatively inexpensive and the drugs are manufactured industrially, pharmacies are now overstocked with a multitude of patent medicines in attractive wrappings. The same product is sometimes distributed under different brand names with extravagant advertising.

Advertising, low prices and ease of purchase have led to the present tendency to use drugs indiscriminately or, in any case, more often than is necessary. And a paradoxical phenomenon has occurred, known as "drug dependence".

A patient suffering from a chronic internal complaint is prescribed a certain drug to relieve his pain and to be taken over an extended period. Any attempt made to cut down on the medication leads to worsening of his condition and the reappearance of morbid symptoms. This is a case of necessary and beneficial dependence.

In another case, the medication has done its work, the illness has receded, but the patient continues the treatment through fear of a relapse. This is dependence of a different kind which can be considered psychological and which is more often than not harmful to health. This dependence generally develops among the anxiety-prone. It can be dealt with by dissuasion, by explaining to the patient that his medicine is no longer needed and has, in fact, become dangerous.

However, the situation is more serious when dealing with so-called psychotropic products, one of the miracles of modern medicine, which are used in the treatment of psychological disorders. Some have a sedative effect and are called tranquillizers; others, on the contrary, are stimulants and are referred to as psychotonics.

Thanks to these drugs, thousands of mental patients have been freed from serious disturbances such as delirium, hallucinations and depression, without having to be confined to a psychiatric ward. In these cases, psychological dependence on the drug is entirely beneficial. By constantly operating on the organism the psychotropic drugs help to free the patient from the psychopathological disturbances that imprison his mind; if these are not completely cured, they may well reappear as soon as the dose of the prescribed drug is reduced.

However, in the great majority of cases, psychotropic substances, both tranquillizers and psychotonics, are used by healthy persons or in cases where doctors diagnose only minor nervous complaints, such as fatigue, irritability or other personality disorders; indecision, anxiety syndromes or apathy.

In all these cases, treatment by tranquillizers gives excellent results

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GRIGORY AVROUTSKI *is one of the leading psychopharmacologists in the U.S.S.R. He is head of the Psychopharmacological Section of the Institute of Psychiatry, Moscow and author of "Contemporary Psychotropic Products and Their Use in Schizophrenia Treatment" and other works, some of them translated in English and German.*

Photo © Holmes-Lebel - Michèle Vignes

"Hippy" meeting in Golden Gate Park, San Francisco during a festival.

VOGUE OF THE PILL *(Continued)*

The unforeseen boomerang effect

and the symptoms disappear quickly. In the past six or seven years sedatives such as meprobamate, librium, valium, trioxazine, etc., have been consumed on an unprecedented scale. In 1963, for example, American drugstores sold 60.775.000 units on prescription alone, without counting those sold freely across the counter.

There can be no doubt that absorbing a drug which can bring rapid, effective action against severe, often unbearable, psychological tension produces an impression of tremendous relief. The patient finds that he can face what until then had seemed unsurmountable difficulties. It is precisely because these drugs have taken on the aspect of a "miracle" cure that tranquillizers and stimulants have come to occupy such an important place in the rough-and-tumble pace of modern life. It has even become fashionable nowadays after the usual remarks about the weather and other no less serious topics, to ask one's friends which brand of tranquillizer they use.

And why not? These drugs are supposed to be harmless and can be taken for as long as one wants to without any fear of secondary effects; at least, that is what certain advertisements and some medical men say. Helenium and librium sometimes cause dizziness and slight difficulties in co-ordination to be sure, but these are only passing symptoms.

From this it is a natural step to the conclusion that there is no need to submit one's nervous system to the permanent strain created by modern life; that there is no reason to insist on training our will power to control our nerves, anxiety or lack of self-confidence since miracle products do it all for us as if by magic.

The box of tranquillizer pills first makes its appearance on the bedside table; then it is carried in coat pocket or handbag so that one can swallow a pill just before going into the boss's office or before facing the audience on opening night or simply after a family squabble.

As a rule, this is considered better than smoking a cigarette, which is quite true. At least it does no harm to the lungs. But gradually the user notices that instead of the two or three pills a day prescribed by the doctor, he is now taking four or six. This indicates that the nervous system has got used to the drug and that a bigger dose is now needed to achieve the same effect.

At this point one hesitates and begins to get pangs of conscience. Are the pills as good as they are said to be? And then one remembers the drugs which were first developed to cure people but soon turned out to have a boomerang effect.

This is precisely what happened with the amphetamines, a group of drugs widely used in the early 1950s and which, like the tranquillizers, belong to the psychopharmacological family, but have a tonic or stimulating effect. The amphetamines are "pep" pills that stimulate physical and mental energy; they also reduce the appetite and help in slimming, which accounts for their great popularity, particularly as a result of a vast advertising campaign, and the fact that they were once sold without a prescription. In 1954, 200,000 persons are believed to have

used amphetamines in Japan, and the Japanese Government finally clamped strict medical controls on their use.

The use of amphetamines can lead to physical and psychological disturbances such as sharp loss of weight, insomnia, and nervous disorders culminating in psychosis, and the urge to keep on taking the pills is almost uncontrollable. In spite of the control measures adopted, these drugs still represent a serious danger, especially for the young. Cases of misuse are still as frequent as ever, reports the World Health Organization.

Doctors and scientists have recently renewed their campaign in medical journals to tighten controls and limit the medical prescription of amphetamines. The brief history of the amphetamines shows how a medical drug which in other respects has various valuable properties, can virtually become a "narcotic" drug although in fact it is not.

Amphetamines differ from narcotics in the first place by their action, since they are stimulants. They differ also through their chemical structure and pharmacological properties. It was difficult to foresee the hidden dangers in the use of amphetamines when pharmacologists first suggested that they be given to night pilots to help combat fatigue and drowsiness. It was only after extended and exhaustive clinical tests that the amphetamines revealed how dangerous they really were. In fact, no way has yet been found to eliminate their untoward effects completely.

What, then, are the effects of the amphetamines that have raised doubt about their value?

The amphetamines are a drug that acts principally on the nervous system. The capacity of amphetamines to elevate mood and induce a state of well-being is probably largely the basis for their widespread use as stimulants. Since this commonly involves continuous and prolonged administration, the users of these drugs develop varying degrees of psychic dependence on them.

The abuse of this class of drugs originates in and is perpetuated by the psychic drive to attain maximum euphoria. No physical dependence is created. Nevertheless the sudden withdrawal of the stimulant drug which has masked chronic fatigue and the need for sleep now permits these conditions to appear in an exaggerated fashion.

Thus the withdrawal period is characteristically a state of depression both psychic and physical, which probably reinforces the drive to resume the drug. In this respect, it is much less important and does not compare in magnitude with those that occur with morphine, barbiturates, alcohol and other drugs that create physical dependence. Withdrawal of drugs of the amphetamine type is never threatening to life and requires psychological rather than somatic therapy.

A unique feature of the amphetamines is their capacity to induce what is technically known as "tolerance", a quality possessed by few central nervous system stimulants. Tolerance means that the individual finds that the same quantity of drug produces less effect or response, or to put it another way, that larger doses are required to produce the same effect. This increase in dosage can eventually result in death.

WHAT about the tranquillizers? Is it correct to assume that they are suspect in the same way as the amphetamines and other narcotic drugs now are? The answer is "No". Although certain tranquillizers definitely have properties in common with some narcotic drugs, they differ markedly from the latter in that they do not induce the physical dependence and tolerance characteristic of most of these drugs. It cannot be denied, however, that certain tranquillizers do produce psychological dependence.

Hence we may conclude that tranquillizers are quite different from narcotic drugs like marijuana, cocaine, morphine as well as the amphetamines. They are usefully and legitimately employed for medical purposes in the treatment not only of psychological and nervous disorders but many somatic illnesses of the so-called "neurogenic" type, such as cardialgia (neuralgic pains in the region of the heart) and hypertonic diseases (high blood pressure). Such sedatives as meprobamate, librium and trioxazine have proved highly valuable and effective in dealing with diseases of this kind.

But like all drugs, tranquillizers and sedatives should be used with moderation and should be used only on a doctor's prescription.

The sense of security engendered by the possibility of resorting to tranquillizers results in the atrophy of our psychological functions, weakening will-power and character; in short, inhibiting those aspects of our personality which should help us to face up to day-to-day difficulties.

The real use of tranquillizers is to help people overcome some pathological disturbance at a certain moment. The purpose, I repeat, is to "help" and not to replace individual effort. In the case of a fracture, crutches are helpful in enabling the bones to mend more quickly, by supporting part of the weight and keeping limbs immobile. But if crutches are used permanently, muscles which have remained in enforced inactivity for too long become atrophied and the healing process is delayed. This is equally true of tranquillizers.

And so we find that the continued use of tranquillizers results in psychological dependence. People have confidence in the drug and believe that it will help them in moments of stress and strain. A person who makes moderate use of tranquillizers can usually stop taking them when he or she decides to do so. Sometimes, however, it is not as easy as one believes, and psychotherapy measures are called for.

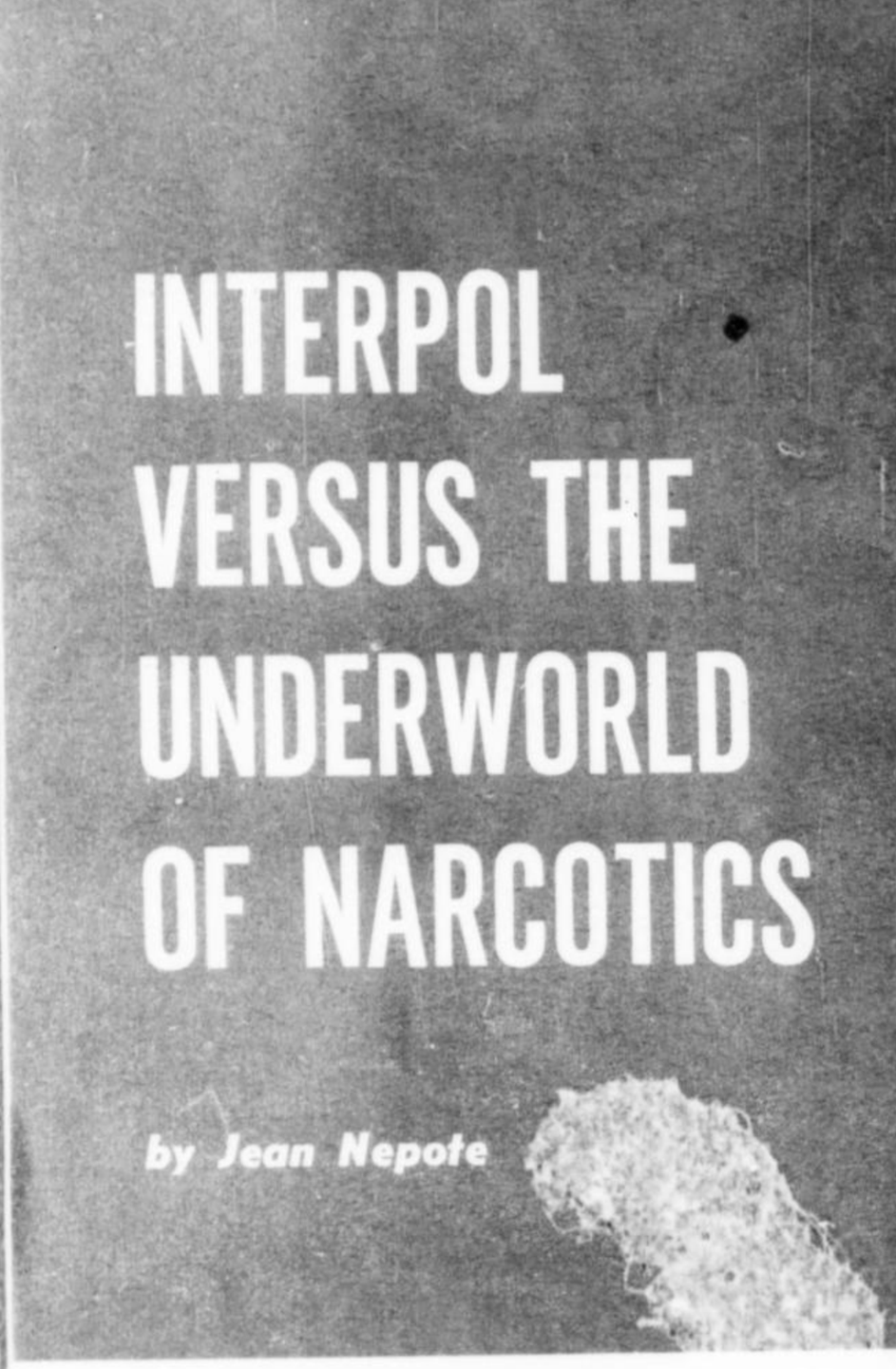
A person who suddenly stops taking tranquillizers after many months of heavy dosage usually finds that the break is accompanied by very unpleasant effects, and patients are known to have suffered convulsions as a result. As a general rule, however, with moderate use, one can usually stop taking most tranquillizers without experiencing major difficulties, and certainly without the pathological withdrawal symptoms associated with the physical dependence produced by narcotic drugs and the psychological dependence produced by amphetamines.

For all the above reasons, it is our opinion that tranquillizers should not be sold freely across the counter and should be supplied only on medical prescription. Furthermore, in prescribing tranquillizers, the doctor should take into consideration not only the patient's physical and nervous temperament but the gravity of the illness requiring treatment.

In many countries commercial advertising for tranquillizers is prohibited, and information regarding these products is sent exclusively to doctors through their specialized journals. In these countries tranquillizers are not sold without a doctor's prescription.

The near future will no doubt bring new achievements in pharmaceutical chemistry, pharmacology and clinical psychiatry, and we may then have at our disposal tranquillizers which are more effective and harmless. We should like to think that progress in this field will be properly controlled and that tranquillizers will remain what they are today—a wonderful instrument in the hands of doctors as a more effective weapon against nervous and psychological disorders.

INTERPOL VERSUS THE UNDERWORLD OF NARCOTICS



by Jean Nepote

ABUSE of drugs is an affliction that has plagued mankind throughout history. It has caused immeasurable harm in the past and continues to do so today.

For the last fifty years nations have been co-operating closely to solve this problem. They have created and put into force a system of treaties and regulations governing national and international trade in narcotics. And it has often been suggested that the system built up over the years could well be adopted as a model in other fields.

But the application of national and international control to trade in narcotics has promoted in its turn the growth of a "black market" in these products, an illicit traffic with which the police forces of the world now have to contend.

These are the basic facts of the problem.

The motivations of drug addiction, of course, are completely different depending on whether one is considering a heroin addict in New York or a smoker of hashish in Africa, a chewer of coca leaves in the Andes or an opium addict in Hong Kong. I do not propose to discuss the psychological maladjustments or the physical needs which induce a person to abuse drugs; I wish simply to review the present situation and to show how efforts are being made to deal with it.

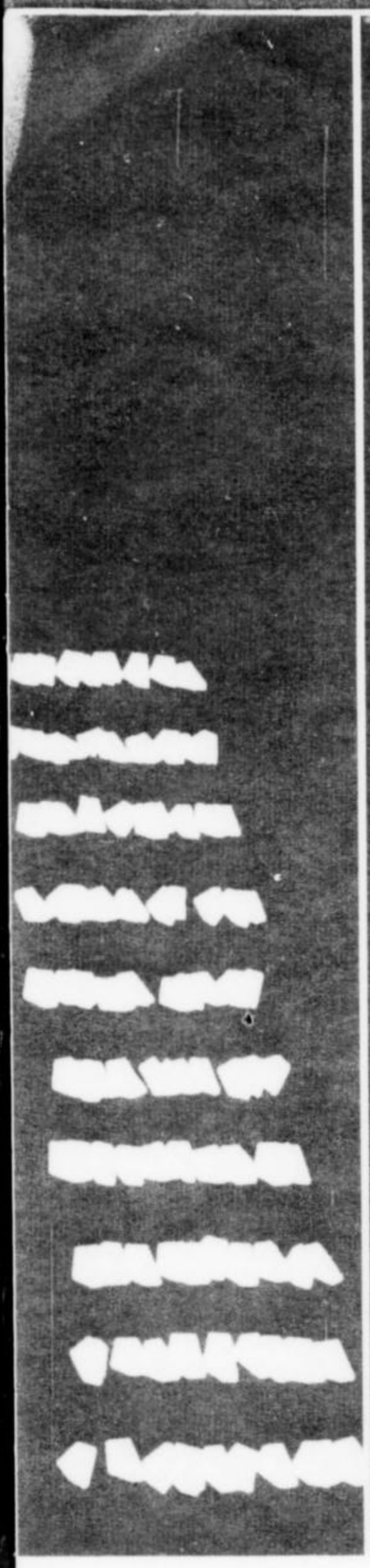
To provide a clear picture of the present state of drug abuse is far from easy for, as one might imagine, no precise figures exist of the number of drug addicts in the world. Statistics are difficult to obtain, partly because drug taking is a clandestine affair and addicts do not announce the fact to the authorities. Furthermore many countries still lack the administrative services which would enable them to identify and register drug addicts.

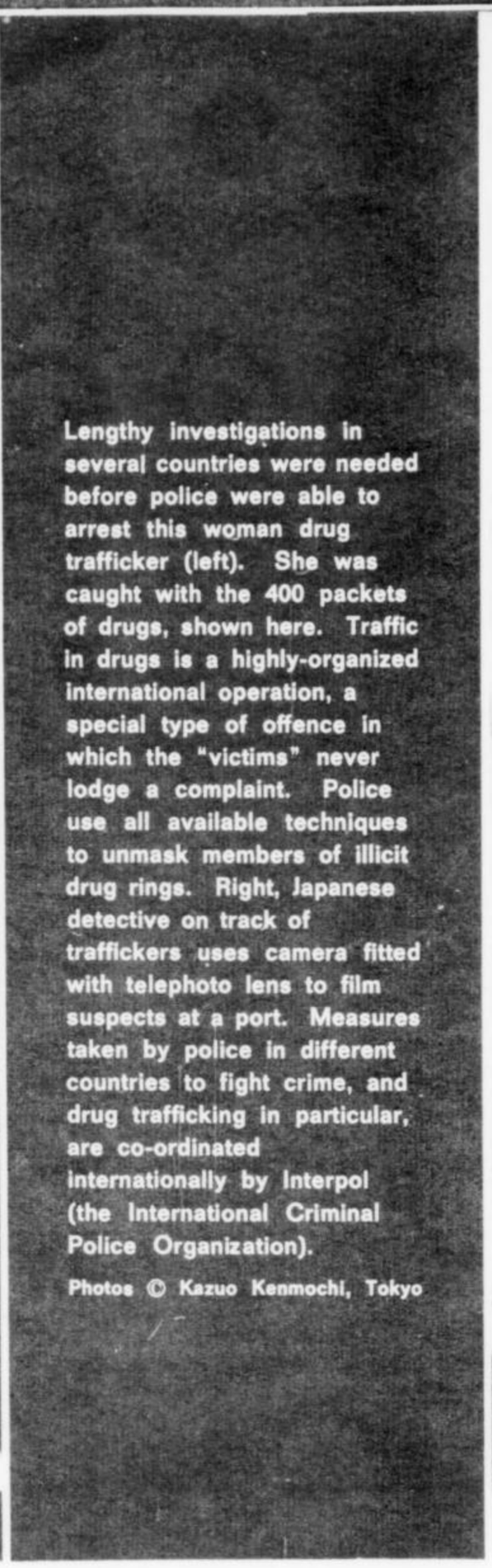
The number of drug addicts varies considerably from one region of the world to another and according to the types of drugs employed. In North America (U.S.A. and Canada) two main types of drug are taken, 1) heroin, affecting about 60,000 persons (55,000 officially indicated in the U.S.A. and 2,200 in Canada), and 2) cannabis which is mostly smoked in the form of marijuana cigarettes, particularly in the U.S.A.

South America's chief drug is the coca leaf, chewed by at least four million Indians living in the Andean Highlands; coca leaves are also used to produce cocaine which is employed in various parts of the world by certain drug addicts.

In Africa, the drug most frequently used is cannabis, and it is estimated that the number of persons who smoke cannabis runs into the tens of thousands, especially in rural areas.

JEAN NEPOTE *is Secretary-General of Interpol (the International Criminal Police Organization).*





Lengthy investigations in several countries were needed before police were able to arrest this woman drug trafficker (left). She was caught with the 400 packets of drugs, shown here. Traffic in drugs is a highly-organized international operation, a special type of offence in which the "victims" never lodge a complaint. Police use all available techniques to unmask members of illicit drug rings. Right, Japanese detective on track of traffickers uses camera fitted with telephoto lens to film suspects at a port. Measures taken by police in different countries to fight crime, and drug trafficking in particular, are co-ordinated internationally by Interpol (the International Criminal Police Organization).

Photos © Kazuo Kenmochi, Tokyo

In Europe the problem of drug addiction is negligeable except for reports of the increasing use of cannabis, particularly by young people. A number of heroin addicts have been noted in the Federal Republic of Germany, France, Italy and U.K., but most of these originated with medical treatment.

In the Near and Middle East, some countries are untroubled by drug addiction whereas in others it is a serious problem. The United Arab Republic has many hashish smokers and a far from negligeable number of opium smokers. Iran faces a difficult problem with the switch from opium to heroin following the courageous decision of the Iranian government in 1955 to outlaw all use, trade and production of narcotic drugs.

In the Far East and South-East Asia, there are still a large number of opium addicts, in the order of 300,000 to 350,000. The Far East, like the United States, is undoubtedly a sensitive focal point in the world of drug abuse. Governments in the region frankly admit that many rural communities in Burma, Thailand and Laos cultivate the opium poppy and smoke the drug. Singapore has at least 10,000 opium smokers, and Malaysia probably more.

The black spot of the region is Hong Kong which may have as many as 80,000 to 100,000 heroin addicts. A government White Paper published in 1959 calculated at 170 million Hong Kong dollars the sums squandered each year on the clandestine drug market in Hong Kong.

There are also about 3,000 heroin addicts in Japan. Of mainland China we can say nothing, since no official data is available.

If the national and international regulations governing the legal narcotics trade were strictly enforced, drug addicts would have no source of supply and would rapidly disappear.

As a result of very precise international agreements, trade in all narcotic drugs, whether natural or manufactured, has been severely restricted. The opium poppy is the basis of opium and its derivatives: morphine and heroin. International agreements therefore, as a first step limited the number of countries authorized to produce opium. (There are presently seven—Bulgaria, Greece, India, Iran, Turkey, USSR and Yugoslavia. Greece and Iran, however, have stopped production).

A complex system of controls, export and import licenses, was organized so that, theoretically, not a single gramme of opium could escape control and be diverted from the authorized trade channels through which the legitimate needs of medicine, science and industry are supplied. Unfortunately, despite all these efforts, reality is still rather far from theory.

Authorized production is diverted to illegal use, either by producers who fail to declare the totality of their crop to the official monopoly, or by

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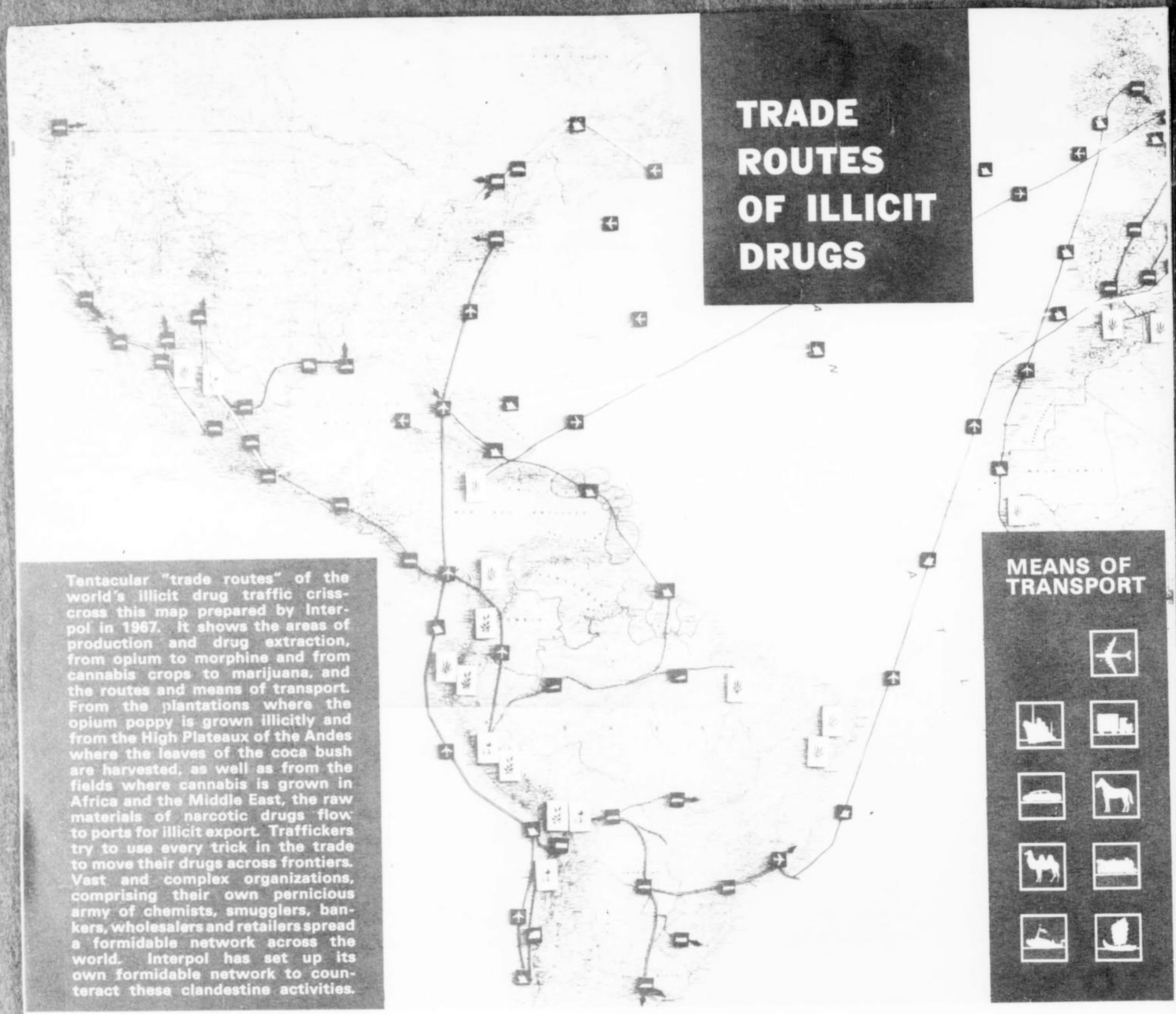


Tentacular "trade routes" of the world's illicit drug traffic criss-cross this map prepared by Interpol in 1967. It shows the areas of production and drug extraction, from opium to morphine and from cannabis crops to marijuana, and the routes and means of transport. From the plantations where the opium poppy is grown illicitly and from the High Plateaux of the Andes where the leaves of the coca bush are harvested, as well as from the fields where cannabis is grown in Africa and the Middle East, the raw materials of narcotic drugs flow to ports for illicit export. Traffickers try to use every trick in the trade to move their drugs across frontiers. Vast and complex organizations, comprising their own pernicious army of chemists, smugglers, bankers, wholesalers and retailers spread a formidable network across the world. Interpol has set up its own formidable network to counteract these clandestine activities.

farmers who plant a larger surface than that authorized. Anyone familiar with rationing during the Second World War can easily imagine this situation. Moreover, there are vast areas in the world which have virtually no government control and where poppies are grown illegally on a large scale.

To sum up the opium situation, we find a sort of crescent-shaped "fissure" from the Near East to South-East Asia where opium is produced illegally. To put it in figures, we quote an estimate found in a recent report of the Central Permanent Opium Committee: 1,200 tons of opium are apparently produced illegally in the world while legal production amounts to about 800 tons, to supply legally recognized needs. This figure of 1,200 tons was recently confirmed.

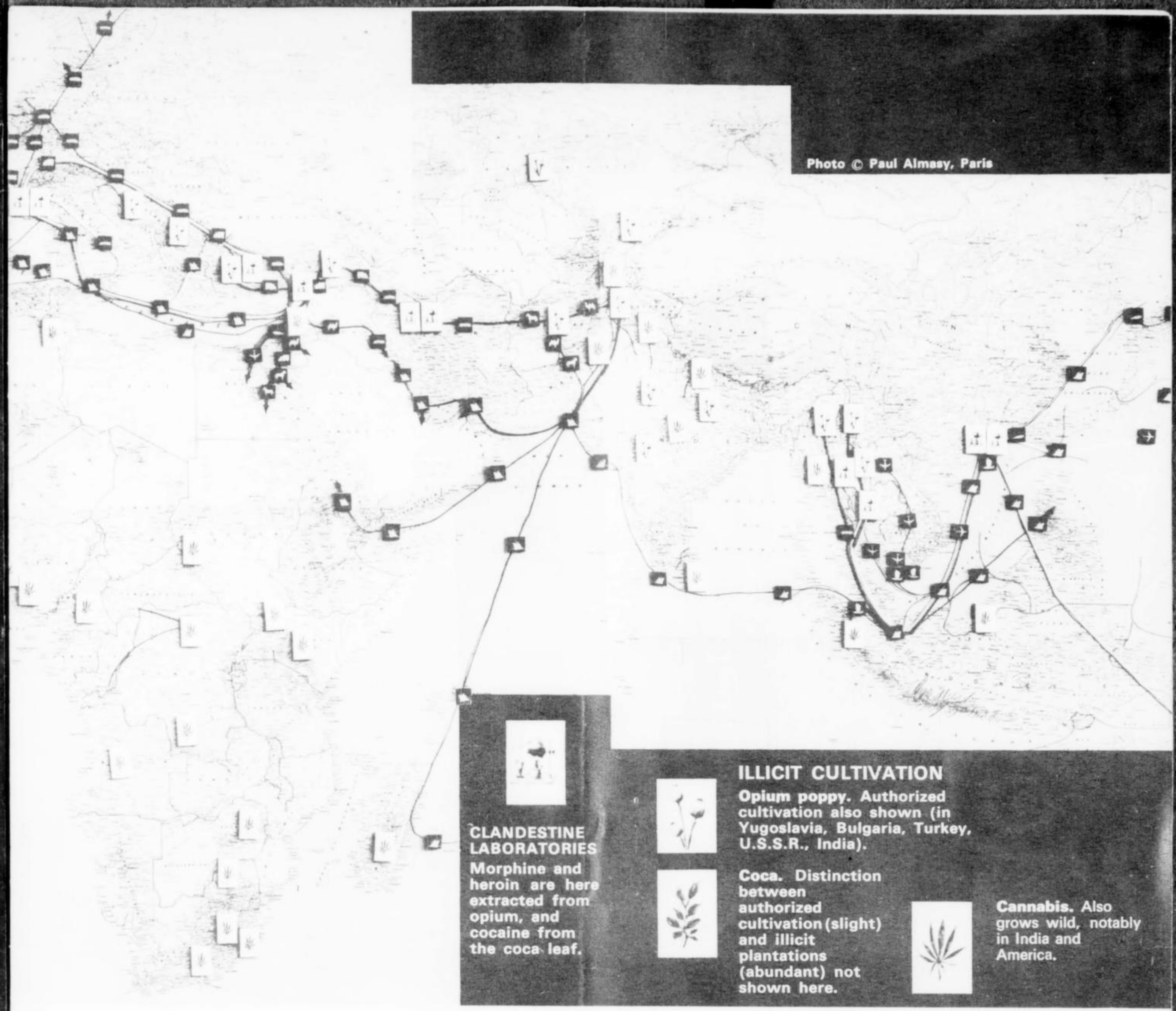
International trade routes in opium and its derivatives (morphine and heroin) start from this vast region. Some reach the United States via the Mediterranean and Europe; others, via South-East Asia and Singapore, reach Hong Kong, Japan and occasionally the West Coast of the United States and Canada. There are of course subsidiary regional zones, but it would take too long here to list the various routes.

As for cannabis, it is impossible to make an accurate estimate of its illegal production because it can grow wild just about anywhere, so long as the climate is at all suitable. Its traffic is also international in scale.

The situation is a little clearer as regards cocaine, although it is no less alarming: most of the cocaine traffic originates in South America and particularly in Bolivia and Peru.

To give a better idea of the complexity of these problems, it should be stressed that the illegal smuggling of narcotics, considered from a purely national point of view, is in no way related to drug addiction. Perhaps the best example is that of France where the number of heroin addicts is negligeable but where important quantities of morphine and heroin are seized regularly (186 kilos in 1967) which indicates the existence of processing laboratories in that country.

From the criminologist's point of view, drug smuggling is a special offence, with a pattern all of its own. Unlike most criminal offences, there are, strictly speaking, no victims; no one complains to the police of injury or damages; no one reports that he has obtained a certain quantity of drugs or how he did so; in this type



of violation of the law, the addict is the accomplice of the smuggler and the peddlar.

Nor do cases of drug trafficking offer much scope for the "scientific" police investigation. There are few clues to be gathered at the scene of the crime; no possibility of technical analysis or observation; few fingerprints which could lead to the identification of the culprit.

Another peculiarity of the drug traffic is that it is often in the hands of old offenders who are well acquainted with the dark and slippery ways of the underworld. It is not usually a game for novices. The U.S. Commissioner of Narcotic Drugs reported a few years ago that 63 per cent of those arrested for narcotic offences in the U.S.A. had previous criminal records.

Traffic in drugs, hence, is the perfect type of organized crime. It is clearly impossible for the same person to harvest a kilo of opium in his own fields in India or Burma, to turn it into 100 grammes of morphine and then into 100 grammes of heroin, and after that cross to the United States, Canada or Hong Kong to sell it.

On the contrary, the illicit drug traffic is a "big business" operation, whose instigators first have to invest large sums in the purchase of drugs. They also must hire specialists or at least persons capable of processing the raw material through several stages. They have to set up a transport system, often stretching over thousands of miles. Finally, they have to penetrate and become known in the closed circles of the narcotics racket in order to sell their products.

In the illegal drug trade, there are the producers of raw material, the processors or manufacturers, the wholesalers, semi-wholesalers, retailers, bankers and carriers.

Good products have their brand names; blocks of morphine labelled "999" are famous; so are the little bags of cannabis marked "The keys of Paradise". It is not unusual to see packets marked "Genuine quality product; beware of imitations".

Drug smugglers are wily and daring. They use every trick to move their merchandise. Heroin has been discovered in the walls of refrigerators (Hong Kong), in oscilloscopes (USA); bales of goatskins stuffed with morphine have been found in Marseilles. A few months ago, near Geneva, a Turkish truck loaded with water melons was stopped; hidden in specially prepared compartments the police

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102 countries in the Interpol network

found 500 kilogrammes of morphine.

In South-East Asia small tourist planes sometimes put down on improvised landing fields and load opium which is then parachuted over the sea. Protected by plastic bags, the opium is towed underwater and smuggled into port.

To cross the U.S. frontiers, drug smugglers recruit "carriers" who, in the guise of simple tourists, carry rigged suitcases from one address to another. Spurred by periodic arrests and failures, the drug traffickers are constantly trying to evade the police and in this incessant battle of wits, it is obviously the trafficker who nearly always has the initiative; it is he who makes the first move.

The world-wide traffic in narcotics obviously is not an operation masterminded by a single gang. But the activities of small groups of smugglers together forge a chain that encircles the world. All these gangs have their "territories", their contacts with other gangs, sometimes their monopolies and often their rivalries.

By and large the fight against the illicit traffic in narcotics is an extremely difficult one for the police. Following up the intricate threads of its clandestine operations involves long and patient investigation. First a few suspects have to be singled out and shadowed continuously for long periods. Scraps of information picked up have to be pieced together like the parts of a jigsaw puzzle until a coherent pattern is revealed. For days and nights on end investigators must watch without being seen, shadow their quarry without arousing suspicion. And even modern aids such as cameras with telephoto lenses cannot solve all their problems.

If it is to be effective, police action has to be co-ordinated and centralized on a national scale. For many years the United Nations and the International Criminal Police Organization (Interpol) have urged that in each country the repression of the illicit drug traffic should be entrusted to special investigators with authority over large areas, and that their action should be co-ordinated through a central office.

Co-ordination of police action internationally is another indispensable factor and it was precisely to accomplish this that Interpol was created.

Interpol is not an autonomous police force which sends out its detectives all over the world to investigate crime and arrest criminals. It is an organization with international headquarters in France at St-Cloud, on the outskirts of Paris, and its job is to maintain mutual collaboration between the world's police forces in the struggle against crime. One need hardly add that one of its responsibilities is to co-ordinate the fight against drug smuggling.

The need-for international action had first to be recognized by the police in the various countries, and they had to realize that their responsibility did not stop at their own frontiers. Then machinery for this co-operation was needed and, as a priority, the creation in each country of a special international police liaison service which would also serve as a base for dealing with international problems.

Today, 102 countries each have this special police service known as the "National Central Office-Interpol," through which information is exchanged and arrangements for co-operation channelled.

The General Secretariat of Interpol was created as the co-ordinating body for the centres and as a records and information centre for police affairs.

Through the vast network formed by the National Central Offices and the Interpol Secretariat there is now daily co-operation in tracking down criminals on the run, identifying suspects, exchanging data, handling requests for investigations of every kind—everything in fact, which can help an investigation to succeed through international action.

To make such contacts easier, Interpol has set up its own radio network in which 40 countries now participate. Last year the network transmitted 120,000 messages, many hun-

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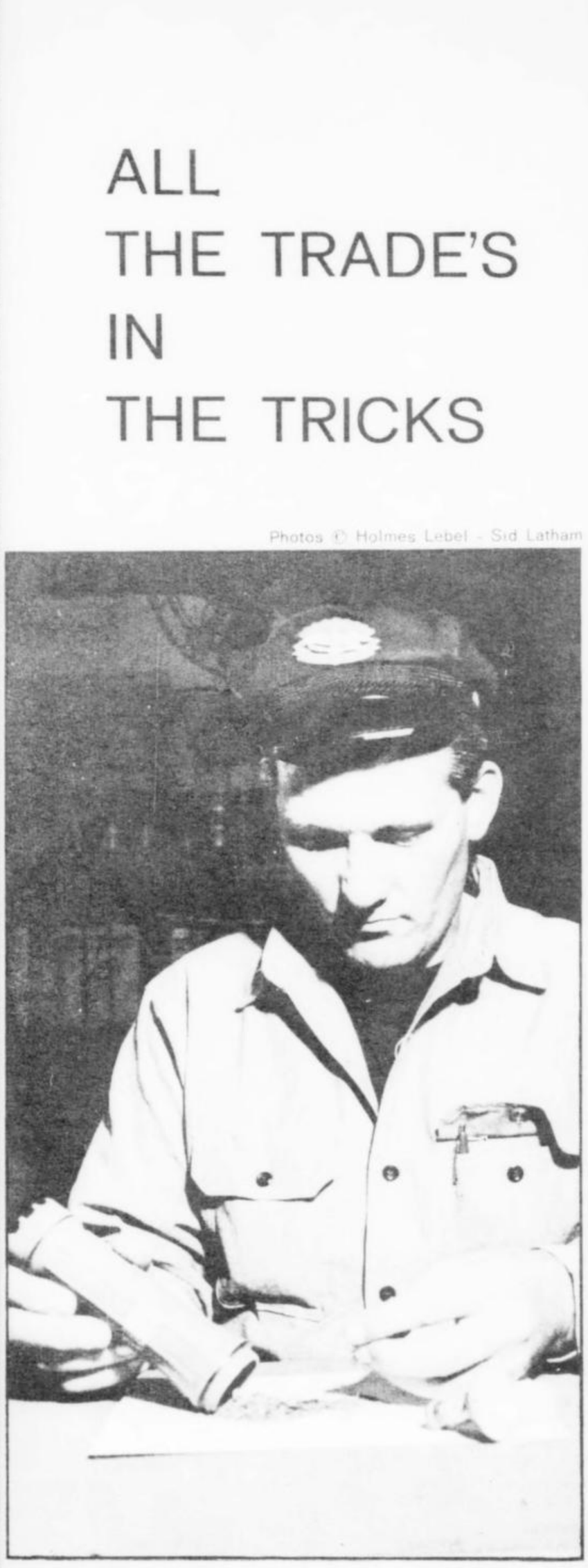
Hush-hush hashish

A photographer films a cargo of cannibis being transported illegally into a village in the Near East (above). Below, police patrol traffic routes along which drugs are known to pass, and sometimes clash with drug dealers' own armed guards. After being dried or fermented, cannabis finds its way into the illicit channels of the international traffic in marijuana, kif or hashish.

Photos © Holmes Lebel - Dante

ALL THE TRADE'S IN THE TRICKS

Photos © Holmes Lebel - Sid Latham



Drugs shipped by traffickers sometimes have their own trade names. Below, from left to right: "The Idol of Women", a brand of hashish from the Middle East; a "thumbs up" symbol marks this packet of crude opium from Asia; "999", a brand of morphine. When customs officials believe a ship is carrying drugs, they go over it minutely from stem to stern (above). A U.S. customs inspector (left) finds a supply of marijuana in a sailor's electric torch. In 1966 alone, over 50,000 kilos of opium and 320,000 kilos of cannabis were seized.

Photos © Paul Almasy, Paris

The new Unesco Statement on Race and Racial Prejudice, published below, is a document of paramount importance in our world today, faced with the challenge of peaceful relations between men of different races. It is painfully clear to anyone who follows current events that prejudice and discrimination rooted in differences of race have led to many acts of violence and constitute a serious menace to the future peace of the world. The "Unesco Courier" sincerely hopes that this Unesco Statement will be carefully read and studied in every part of the world and that it may serve as a guide and inspiration for individuals and governments alike.

STATEMENT ON RACE AND RACIAL PREJUDICE

1 **"All men are born free and equal both in dignity and in rights".** This universally proclaimed democratic principle stands in jeopardy wherever political, economic, social and cultural inequalities affect human group relations. A particularly striking obstacle to the recognition of equal dignity for all is racism. Racism continues to haunt the world. As a major social phenomenon it requires the attention of all students of the sciences of man.

2 **Racism stultifies the development of those who suffer from it,** perverts those who apply it, divides nations within themselves, aggravates international conflict and threatens world peace.

3 **The conference of experts meeting in Paris in September 1967, agreed that racist doctrines lack any scientific basis whatsoever.** It reaffirmed the propositions adopted by the international meeting held in Moscow in 1964 which was called to re-examine the biological aspects of the statements on race and racial differences issued in 1950 and 1951. In particular, it draws attention to the following points:

- All men living today belong to the same species and descend from the same stock.
- The division of the human species into "races" is partly conventional and partly arbitrary and does not imply any hierarchy whatsoever. Many anthropologists stress the importance of human variation, but believe that "racial" divisions have limited scientific interest and may even carry the risk of inviting abusive generalization.
- Current biological knowledge does not permit us to impute cultural achievements to differences in genetic potential. Differences in the achievements of different peoples should be attributed solely to their cultural history. The peoples of the world today appear to possess equal biological potentialities for attaining any level of civilization.

Racism grossly falsifies the knowledge of human biology.

4 **The human problems arising from so-called "race" relations are social in origin rather than biological.** A basic problem is racism, namely, anti-social beliefs and acts which are based on the fallacy that discriminatory inter-group relations are justifiable on biological grounds.

5 **Groups commonly evaluate their characteristics in comparison with others. Racism falsely claims that there is a scientific basis for arranging groups hierarchically in terms of psychological and cultural characteristics that are immutable and innate.** In this way it seeks to make existing differences appear inviolable as a means of permanently maintaining current relations between groups.

6 **Faced with the exposure of the falsity of its biological doctrines, racism finds ever new stratagems for justifying the inequality of groups.** It points to the fact that groups do not intermarry, a fact which follows, in part, from the divisions created by racism. It uses this fact to argue the thesis that this absence of intermarriage derives from differences of a biological order. Whenever it fails in its attempts to prove that the source of group differences lies in the biological field, it falls back upon justifications in terms of divine purpose, cultural differences, disparity of educational standards or some other doctrine which would serve to mask its continued racist beliefs. Thus, many of the problems which racism presents in the world today do not arise merely from its open manifestations, but from the activities of those who discriminate on racial grounds but are unwilling to acknowledge it.

7 **Racism has historical roots. It has not been a universal phenomenon. Many contemporary societies and cultures show little trace of it. It was not evident for long periods in world history.** Many forms of racism have arisen out of the conditions of conquest, out of the

justification of Negro slavery and its aftermath of racial inequality in the West, and out of the colonial relationship Among other examples is that of anti-semitism, which has played a particular rôle in history, with Jews being the chosen scapegoat to take the blame for problems and crises met by many societies.

8 **The anti-colonial revolution of the Twentieth century has opened up new possibilities for eliminating the scourge of racism.** In some formerly dependent countries, people formerly classified as inferior have for the first time obtained full political rights. Moreover, the participation of formerly dependent nations in international organizations in terms of equality has done much to undermine racism.

9 **There are, however, some instances in certain societies in which groups, victims of racialistic practices, have themselves applied doctrines with racist implications in their struggle for freedom.** Such an attitude is a secondary phenomenon, a reaction stemming from men's search for an identity which prior racist theory and racialistic practices denied them. None the less, the new forms of racist ideology, resulting from this prior exploitation, have no justification in biology. They are a product of a political struggle and have no scientific foundation.

10 **In order to undermine racism it is not sufficient that biologists should expose its fallacies. It is also necessary that psychologists and sociologists should demonstrate its causes.** The social structure is always an important factor. However, within the same social structure, there may be great individual variation in racialistic behaviour, associated with the personality of the individuals and their personal circumstances.

11 **The committee of experts agreed on the following conclusions about the social causes of race prejudice:**

- Social and economic causes of racial prejudice are particularly observed in settler societies wherein are found conditions of great disparity of power and property, in certain urban areas where there have emerged ghettoes in which individuals are deprived of equal access to employment, housing, political participation, education, and the administration of justice, and in many societies where social and economic tasks which are deemed to be contrary to the ethics or beneath the dignity of its members are assigned to a group of different origins who are derided, blamed and punished for taking on these tasks.
- Individuals with certain personality troubles may be particularly inclined to adopt and manifest racial prejudices. Small groups, associations, and social movements of a certain kind sometimes preserve and transmit racial prejudices. The foundations of the prejudices lie, however, in the economic and social system of a society.
- Racism tends to be cumulative. Discrimination deprives a group of equal treatment and presents that group as a problem. The group then tends to be blamed for its own condition, leading to further elaboration of racist theory.

12 **The major techniques for coping with racism involve changing those social situations which give rise to prejudice,** preventing the prejudiced from acting in accordance with their beliefs, and combating the false beliefs themselves.

13 **It is recognized that the basically important changes in the social structure that may lead to the elimination of racial prejudice may require decisions of a political nature.** It is also recognized, however, that certain agencies of enlightenment, such as education and other means of social and economic advancement, mass media, and law can be immediately and effectively mobilized for the elimination of racial prejudice.

14 **The school and other instruments for social and economic progress can be one of the most effective agents for the achievement of broadened understanding and the fulfilment of the potentialities of man.** They can equally much be used for the perpetuation of discrimination and inequality. It is therefore essential that the resources for education and for social and economic action of all nations be employed in two ways.

- The schools should ensure that their curricula contain scientific understandings about race and human unity, and that invidious distinctions about peoples are not made in texts and classrooms.
- Because the skills to be gained in formal and vocational education become increasingly important with the processes of technological development, the resources of the schools and other resources should be fully available to all parts of the population with neither restriction nor discrimination.
- Furthermore, in cases where, for historical reasons, certain groups have a lower average education and economic standing, it is the responsibility of the society to take corrective measures. These measures should ensure, so far as possible, that the limitations of poor environments are not passed on to the children.

In view of the importance of teachers in any educational programme, special attention should be given to their training. Teachers should be made conscious of the degree to which they reflect the prejudices which may be current in their society. They should be encouraged to avoid these prejudices.

15 **Governmental units and other organizations concerned should give special attention to improving the housing situations and work opportunities available to victims of racism.** This will not only counteract the effects of racism, but in itself can be a positive way of modifying racist attitudes and behaviour.

16 **The media of mass communication are increasingly important in promoting knowledge and understanding, but their exact potentiality is not fully known.** Continuing research into the social utilization of the media is needed in order to assess their influence in relation to formation of attitudes and behavioural patterns in the field of race prejudice and race discrimination. Because the mass media reach vast numbers of people at different educational and social levels their rôle in encouraging or combating race prejudice can be crucial. Those who work in these media should maintain a positive approach to the promotion of understanding between groups and popula-

CONTINUED ON NEXT PAGE

tions. Representation of peoples in stereotypes and holding them up to ridicule should be avoided. Attachment to news reports of racial designations which are not germane to the accounts should also be avoided.

17 **Law is among the most important means of ensuring equality between individuals and one of the most effective means of fighting racism.**

The Universal Declaration of Human Rights of 10 December 1948 and the related international agreements and conventions which have taken effect subsequently can contribute effectively, on both the national and international level, to the fight against any injustice of racist origin.

National legislation is a means of effectively outlawing racist propaganda and acts based upon racial discrimination. Moreover, the policy expressed in such legislation must bind not only the courts and judges charged with its enforcement, but also all agencies of government of whatever level or whatever character.

It is not claimed that legislation can immediately eliminate prejudice. Nevertheless, by being a means of protecting the victims of acts based upon prejudice, and by setting a moral example backed by the dignity of the courts, it can, in the long run, even change attitudes.

18 **Ethnic groups which represent the object of some form of discrimination are sometimes accepted and tolerated by dominating groups at the cost of their having to abandon completely their cultural identity.** It should be stressed that the effort of these ethnic groups to preserve their cultural values should be encouraged. They will thus be better able to contribute to the enrichment of the total culture of humanity.

19 **Racial prejudice and discrimination in the world today arise from historical and social phenomena and falsely claim the sanction of science.** It is, therefore, the responsibility of all biological and social scientists, philosophers, and others working in related disciplines, to ensure that the results of their research are not misused by those who wish to propagate racial prejudice and encourage discrimination.

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This statement was prepared by a committee of experts on race and racial prejudice which met at Unesco House, Paris, from 18 to 26 September 1967. The following experts took part in the committee's work:

Professor **MUDDATHIR ABDEL RAHIM** (University of Khartoum, Sudan); Professor **GEORGES BALANDIER** (University of Paris, France); Professor **CELIO DE OLIVEIRA BORJA** (University of Guanabara, Brazil); Professor **LLOYD BRAITHWAITE** (University of the West Indies, Jamaica); Professor **LEONARD BROOM** (University of Texas, United States of America); Professor **G. F. DEBETZ** (Institute of Ethnography, Moscow, USSR); Professor **J. DJORDJEVIC** (University of Belgrade, Yugoslavia); Dean **CLARENCE CLYDE FERGUSON** (Howard University, United States of America); Dr. **DHARAM P. GHAI** (University College, Kenya); Professor **LOUIS GUTTMAN** (Hebrew University, Israel); Professor **JEAN HIERNAUX** (Université Libre de Bruxelles, Belgium); Professor **A. KLOSKOWSKA** (University of Lodz, Poland); Judge **KEBA M'BAYE** (President of the Supreme Court, Senegal); Professor **JOHN REX** (University of Durham, United Kingdom); Professor **MARIANO R. SOLVEIRA** (University of Havana, Cuba); Professor **HISASHI SUZUKI** (University of Tokyo, Japan); Dr. **ROMILA THAPAR** (University of Delhi, India); Professor **C. H. WADDINGTON** (University of Edinburgh, United Kingdom).

INTERPOL VERSUS THE UNDERWORLD OF NARCOTICS *(Continued from page 28)*

dreds of them concerning traffic in narcotics.

In its role as world headquarters against international crime, the Interpol Secretariat not only keeps records of all traffickers and of all persons implicated in any way with the drug traffic; it also circulates their descriptions and gathers information on gangs and their smuggling techniques.

One day for example, a man informed the Belgian police that he had been approached to drive his car with a quantity of drugs from Istanbul (Turkey) to Western Europe. He was asked to maintain contact with the smugglers.

The Turkish police were alerted and took steps to keep in touch with the driver and to catch the smugglers red-handed. The gang, however, was wary and revealed their plan of operation to the "carrier" only in snippets: a hiding place had been arranged in the petrol tank of his car. The morphine was to be driven to Marseilles and delivered in exchange for half a Turkish pound note, the other half of which he would be given just before leaving Istanbul. On his return trip he was to travel via Switzerland and pick up a lead of contraband watches.

On the day he was due to leave, the Turkish police searched his car and discovered nearly 40 kilos of morphine. Most of the gang were identified and arrested: information sent to the French police enabled them to identify the person who was to receive the drug in Marseilles.

Sometimes operations of this type are more complex and delicate. In such cases, a detective from Hong Kong, for instance, might be sent to Bangkok to give the authorities there details of a case which began in Hong Kong, but which also had ramifications in Thailand.

The world still has hundreds of thousands of drug addicts, but there would be many many more if preventive and repressive measures had not been adopted and applied on a world scale. Great progress has been made in international police co-operation since the groundwork was laid during the period between the two World Wars.

Yet no one could deny that flaws still exist in the present system for stamping out the illicit traffic in drugs. Not all countries attach the same importance to the problem, and over large areas official controls are either non-existent or inadequate, which makes things much easier for the smugglers.

Frontier control is especially difficult, in one area because of the topography of the country, in another because control services are swamped by the volume of travellers crossing the border. The extraordinary ease with which people travel nowadays makes it difficult for the police to capture all the smugglers and criminals who slip unseen among them.

Fresh problems have been created by the new synthetic drugs, LSD among them.

The police have a difficult job ahead of them. And they will not succeed in it unless at the same time the fundamental economic, social and educational problems are solved in certain parts of the world. Arresting a drug smuggler is fine. But a drug smuggler without a job because he has no merchandise or no customers would certainly be far better!

From the Unesco Newsroom...

The right buoy for the job

A new type of ocean-going research platform, ORB (Oceanographic Research Buoy) has been built for the Marine Physical Laboratory of Scripps Institution of Oceanography, University of California, U.S.A. ORB has joined the Laboratory's other unusual research vehicle, FLIP (Floating Instrument Platform) which is upended in the ocean for underwater acoustic research (see "Unesco Courier", Oct. 1966). The 45-foot-square ORB has an open 15-by-20 foot centre well for its operational work and displaces 180 tons. Its initial assignment is underwater acoustic research off La Jolla, California, but its cable hoist system capable of handling a 30,000 pound payload will later be used in the operation of several oceanographic research vehicles including a remote controlled sea floor tractor and a two-man deep submersible.

Radio-clubs in Cameroon and Togo

A United Nations Development-Unesco audio visual specialist from Haiti has helped to organize 120 educational radio listening groups throughout Cameroon, and has trained personnel to direct them. In Togo, radio clubs grew from 475 to 746 during the second half of 1967, under a programme introduced by a Unesco educational broadcasting specialist from India.

Airport for prehistoric city

Mohenjo-Daro in Pakistan, the largest planned city of the prehistoric world, has recently acquired its own airport. The greatest of the ancient Indus cities to survive, Mohenjo-Daro is 300 miles from Karachi across the Sind desert. Excavation of the 4,000-year-old city from the sand which had covered it began in the 1920s, but until recently few people other than archaeologists have been able to see the results.

Afro-Asian books in English

Two monthly checklists of English-language books published in Asia and Africa are now available for the use of libraries, scholars and research institutes. Subscriptions may be obtained from K.K. Roy (Private) Ltd., P.O. Box 10210, Calcutta 19, India.

Bringing science to Papuan schools

A joint Unesco-Unicef project is to help promote general science teaching in the Territory of Papua and New Guinea, at present administered by Australia under a U.N. agreement. Unicef will supply laboratory and science equipment and other forms of aid, totalling $275,000 during the next three years; Australia will contribute $825,000; and Unesco will advise on science teaching and programme development. Technical advice and guidance will also be given by the Unesco Regional Centre of Science and Technology for South-East Asia, in Bangkok.

U.K. library honours Gutenberg anniversary

Rare printed books and manuscripts of the 15th century are on display in the John Rylands Library, Manchester (U.K.), to mark the fifth centenary of the death of Johann Gutenberg, Europe's inventor of printing from movable type. The collection includes a 36-line Bible printed in Bamberg before 1460, of which only 11 copies are believed to exist, and a Psalter of 1457, the first book to use more than one printed colour and to carry a colphone with the printer's name, and place and date of publication.

New names among top translating countries

The U.S.S.R. remains top of the list of translating countries with 3,968 titles, according to the latest (19th) edition of Unesco's "Index Translationum," (1) which lists 39,367 translations published in 70 countries during 1966. The U.S.S.R. is now followed by Yugoslavia (3,452), which lay eighth in 1964, and whose production has more than doubled since then to bring it ahead of Germany (3,095). Another noteworthy advance is that of Spain (2,429), now in fourth place ahead of the U.S.A. (2,069). Lenin remains the most translated author (201) followed by Georges Simenon (137) and Tolstoy (122). During 1966 there were 197 translations of the Bible.

(1) International Bibliography of Translations. Price $32.00, £9.10s, *112 F.*

Flashes...

■ *80,000 cases of smallpox occurred in 1967 (as against 123,000 in 1963) reports WHO, whose world campaign aims to totally eradicate smallpox by 1977.*

■ *A five-year effort to cut India's immense losses caused to stored grain by pests and fungi is being made by the Indian Government and FAO, helped by a $1.1 million grant from the U.N. Development Programme.*

■ *Iraq has become the 57th state to ratify the Unesco Convention on Protection of Cultural Property in the Event of Armed Conflict.*

■ *Plans for developing book production in Africa were recently adopted by 23 African countries at a Unesco meeting in Accra (Ghana).*

■ *A World Federation of Engineering Organizations was set up by engineers from 60 nations at a recent meeting in Unesco's H.Q.*

BOOKSHELF

UNESCO'S TRANSLATIONS SERIES

INDIA

■ **The Interior Landscape: Love Poems from a Classical Tamil Anthology**
Translated by A.K. Ramanujan, 1967 ($ 5.75)

■ **Modern Hindi Poetry: An Anthology**
Edited by Vidya Niwas Misra
Translated by Leonard Nathan, Martin Helpern, Josephine Miles, James Mauch, H.M. Guy and W.M. Murray, 1967 ($4.95)

Two volumes published by Indiana University Press, Bloomington U.S.A. and London, and sponsored by the Asia Society, Inc., New York.

LATIN AMERICA

■ **El Lazarillo: A Guide for Inexperienced Travellers between Buenos Aires and Lima, 1773**
By Concolorcovo
Translated by Walter D. Kline
Indiana University Press, 1965 ($ 7.50)

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■ **Pugwash—the First Ten Years**
By J. Rotblatt
Heinemann Educational Books Ltd., London, 1967 (36/-)

■ **Tikal: A Handbook of the Ancient Maya Ruins**
By William R. Coe
The University Museum, Philadelphia, U.S.A., 1967

■ **Contemporary Civilization: Issue 4**
Edited by James F. Findlay
Scott, Foresman and Co., Glenview, Ill. U.S.A., 1967

■ **Stopping the Spread of Nuclear Weapons**
U.N. Association of the U.S.A., 345 East 46th St., New York, N.Y. 10017, 1967 ($1.00)

■ **A Dictionary of Natural Resources** (From Alizarin to Zinc)
By Nora Jackson and Philip Penn
Pergamon Press, Oxford, 1966 (12/6)

■ **Books on Pakistan**
A bibliography
National Book Centre of Pakistan, Bunder Road, Karachi, 1965 (3 Rupees)

■ **Structures and Functions of the Human Body**
By Gordon Scott MacGregor
Oxford University Press, 1966 (50/-)

■ **How to Find Out About Canada**
By H.C. Campbell
Pergamon Press, Oxford, 1967 ($5.00, 30/-)

■ **The Publishing World in Japan**
Edited by Shigeshi Sasaki
Nippan Inc., C.P.O. Box 699, Yokyo, 1967 ($2.00)

■ **The Living Plant**
An Introduction for African Secondary Schools
By Zachariah Subarsky
Edward Arnold (Publishers) Ltd., London, 1967 (9/-)

Letters to the Editor

U.S.S.R. TODAY

Sir,

In your interesting number, "U.S.S.R. Today" (Nov. 1967), we see progress in many fields, particularly for young people in all levels of education. We see the youth of the country at work and play. All this makes us want to go there and see for ourselves. Nevertheless, two things puzzle us:

Is there no poverty? There was nothing to suggest it in your illustrations. And yet there is poverty in France, in the U.S.A., in fact everywhere. Has the Soviet Union managed to vanquish this evil?

Why does a happy country, blessed with natural resources, whose people have made tremendous progress lock itself within its own frontiers?

M. Grandou
Paris, France

HOW A NATION 'KEEPS ITS COOL'

Sir,

I wish to express my appreciation for your issue devoted to the two Indian epics, the *Mahabharata* and the *Ramayana*, and their related modern art forms (Dec. 1967).

The various competently written articles by well-known authorities not only introduce Indian tradition to outsiders, but give the Indians themselves a capsule refresher course in their past and present achievements. A significant fact to be noted is the continuity of Indian tradition and culture.

The handsomely got up issue is indeed very opportune at a time when so much editorial space is being given both in India and elsewhere to the near-chaos that prevails on the political and economic fronts in the country today. One gets a clear picture of the characteristic ability of the nation "to keep its cool" even in troubled times, deriving its vital force from an ancient faith that is never out of fashion.

M. I. Shastri
Case Western Reserve University
Cleveland, Ohio, U.S.A.

SLAVERY STILL EXISTS

Sir,

Thank you for the remarkable number on Human Rights (Jan. 1968). Article 4 of the Universal Declaration of Human Rights states: "No one shall be held in slavery or servitude..." Yet slavery is still found in some parts of the world. A documentary film, "Slaves Still Exist," drew attention to this tragic problem in 1966. Even so, people and governments, can never be reminded too often that one of man's inalienable rights is still being flagrantly and persistently violated.

F. Fichou
Saint-Dié, France

AUSTRALIA'S FOLK LORE

Sir,

I should here like to make a plea for the conservation of what we choose to think of as our Folk Lore. Essentially this may be regarded as the more human and personal aspects of our country's history. Yet far too often the great drama of important events is chronicled with little thought given to the secondary effects brought about by such happenings.

Too little has been done, here in Australia, to correlate and preserve these adjuncts to the "purer" form of history—as we learnt it from school textbooks. The importance of Folk Lore is too often overlooked by the academic historian; or omitted because, in being passed down, stories become so distorted as to sound ludicrous. The greatest problem lies in seeking out these stories. As yet another generation passes, so too does the bulk of the remaining legends—unless a zealous effort is made now to save them.

As an historian, this worries me. Our National Archives is ill-equipped to act the role of guardian of Australia's Folk Lore. From what I have been able to observe, other nations are placed similarly. Novelists here seem presently to be doing more to document this form of history than are government departments—upon whose shoulders much of the responsibility should lie.

Jock Makin
Bordertown
South Australia

NOISE ADDICTS

Sir,

Your issue on Noise Pollution (July 1967) shows how much needs to be done to overcome this problem.

One point you should have made is that people in cities seem to be addicted to noise. In their homes transistor radios blare away all day long, making conversation difficult if not impossible. These "noiseboxes" are often left switched on even when housewives are out shopping.

What is the real reason that impels people to carry transistor radios around with them so as to have noise within reach at all times? Isn't it because they dread the solitude of their own company when all is quiet.

Jean Le Tourneau
Vanves, France

WORLD SURVEY OF CHILDREN'S LITERATURE

Sir,

Two colleagues and I are collecting material with a view to an eventual publication of studies relating to Children's Literature. It is our hope that sufficient material of an *international* nature exists to justify inclusion as a major emphasis of the projected book.

We are primarily concerned with topical authoritative critical opinion of literature of children—or bibliographies, etc.—stemming from: Major ethnic groupings (Asia, Europe, etc.); National bodies of literature (Persian, Chinese, etc.); Countries achieving full entity (the so-called "emerging countries", e.g.: Nigeria, Kenya, etc.).

Though the book will be primarily designed for the needs of teachers we anticipate it could have a wider appeal, hence items need not have a pedagogical emphasis.

L. F. Ashley
Faculty of Education
The University of British Columbia
Vancouver 8, Canada

TREASURES OF PARIS IN PERIL

Sir,

Paris had the good fortune to escape damage during the Second World War. The heart of the city between the Marais and the Louvre boasts many architectural treasures. This area may be mutilated if a proposed urban development plan is approved by the Paris Municipal Council in June. To prevent it being ravaged, I believe the "Unesco Courier" should devote an article to the splendid buildings in the Halles and Saint-Merri districts. Your magazine with its international readership would be a major asset for the defence of an historically important section of Paris.

Paul Meyer
Paris, France

INDIA'S ENGINEERING GRADUATES

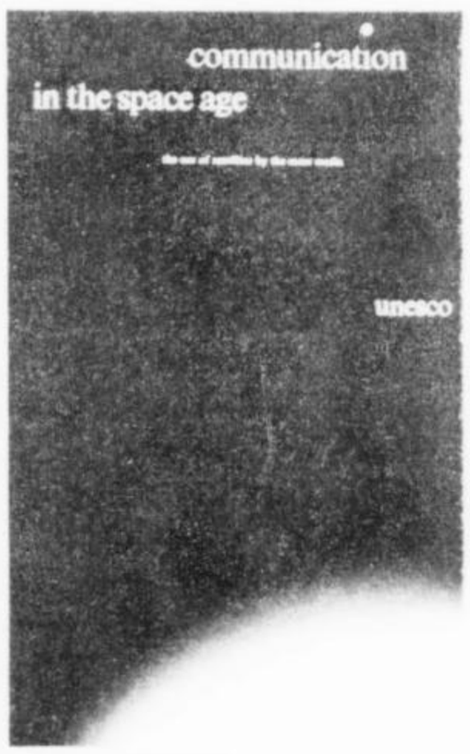
Sir,

The article, "Only the Educated are Free" by Louis François (Jan. 1968) nicely outlines the importance and problems of education vis-à-vis Universal Human Rights, and contains good statistical information.

May I point out, however, that as far as my information goes, Indian universities and institutions of higher education last year turned out 13,000 graduates in engineering and not 5,000 as stated in the article.

Dr. M.P. Varshney
U.N. Development Programme
High Technical Institute, Iraq

Just published



Communication in the Space Age

The Use of Satellites by the Mass Media

"Space communication . . . carries with it an aura of science fiction, yet it is a reality which progressively and with dramatic speed will influence our daily lives". In this book mass media experts discuss the social implications of the space age, the transmission of news, the potentialities for education and cultural exchange.
(See the "Unesco Courier," February 1968)

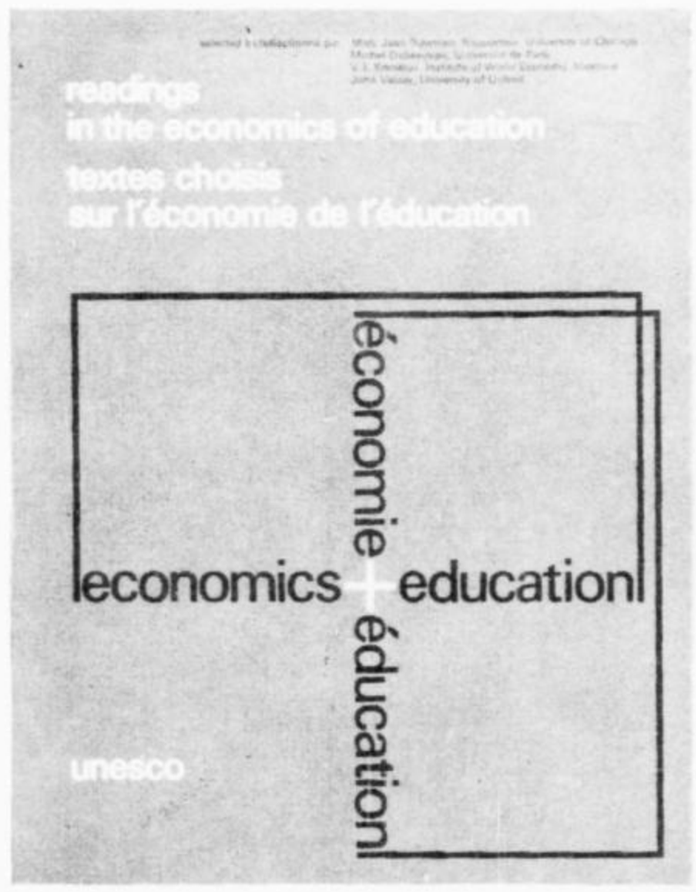
200 pages $4.00

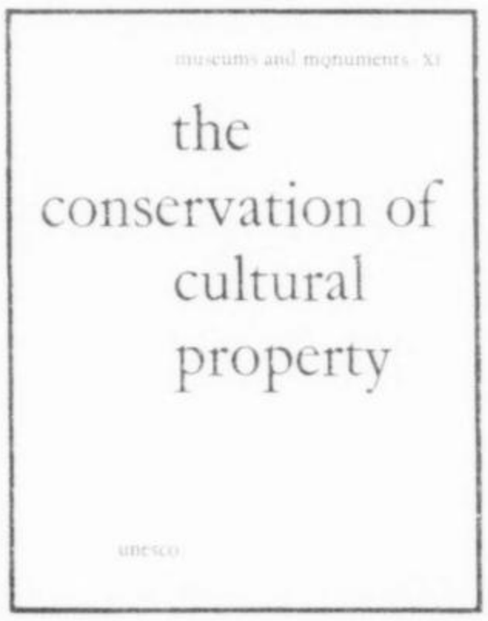
Readings in the Economics of Education

A comprehensive study presenting the writings of economists, past and present, on the role of education in economic development. Its articles, essays and texts will be of vital interest to educators, economists and sociologists. The studies have been selected by Mary Jean Bowman (University of Chicago), Michel Debeauvais (University of Paris), V. E. Komarov (Institute of World Economy, Moscow) and John Vaizey (Oxford University).

Composite: English-French (articles in French are followed by an abstract in English)

945 pages $3.50





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INTERPOL AND THE ILLICIT DRUG TRAFFIC

Photo © Lynn Pelham - Holmès Lebel

Although drug addiction has been a problem that has long preoccupied public authorities, an important change in drug habits has marked the industrial countries in recent years. The sedatives, tranquillizers and stimulants now being mass produced by the pharmaceutical industry have attracted an increasing number of persons—especially among young people—seeking a "cosmic upheaval". Unlike opium, hashish and cocaine, these new products have not come under international control, although in all countries laws forbid their sale except by medical prescription. A vast illicit market in these drugs has developed, supplied by petty traffickers. The man seen here is being questioned by the police after a hoard of barbiturates and amphetamines was found in his car. (See article in this issue by Jean Nepote, Secretary-General of INTERPOL.)